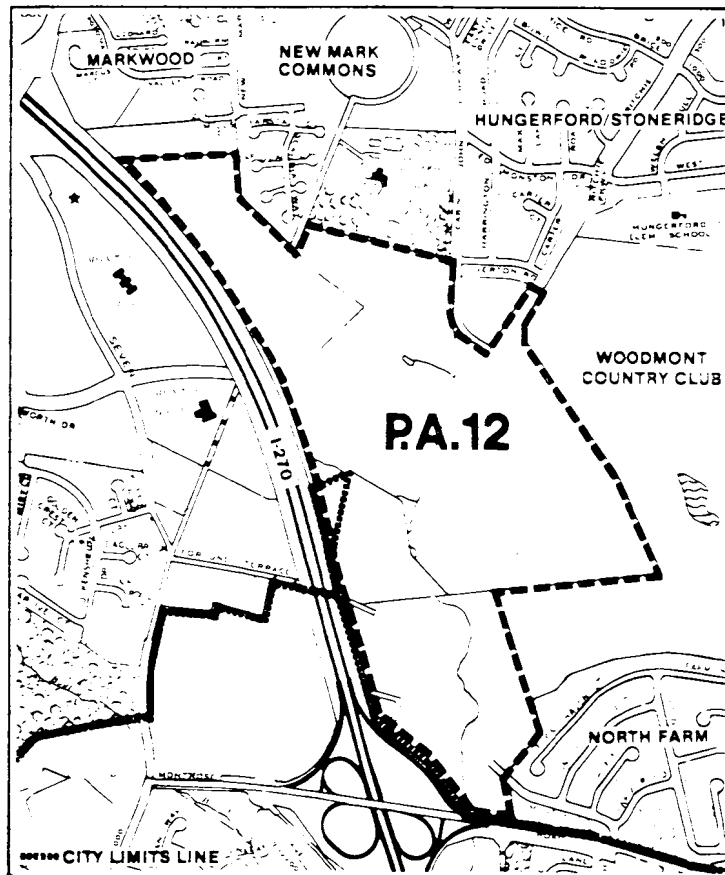




APPROVED AND ADOPTED

PLANNING AREA 12

NEIGHBORHOOD PLAN



**CITY OF ROCKVILLE
PLANNING COMMISSION
MARCH, 1985**

TITLE: Approved and Adopted Planning Area 12 Neighborhood Plan

ADOPTING

AUTHORITY: Mayor and Council of Rockville, Maryland

AUTHOR: City of Rockville, Planning Commission

SUBJECT: A Comprehensive Neighborhood Plan for the
physical, economic, and social development of
Planning Area 12 in Rockville, Maryland

DATE: Approved by the Planning Commission on December 19, 1984
Adopted by the Mayor & Council on April 8, 1985

PLANNING

AGENCY: City of Rockville, Maryland, Department of Planning

SOURCE OF

COPIES: Department of Planning
111 Maryland Avenue
Rockville, Maryland 20850

NUMBER OF

PAGES: 97

ABSTRACT:

The Planning Area 12 Neighborhood Plan examines 237 acres of primarily undeveloped land situated along I-270 north of Montrose Road. Presented is a comprehensive proposal that resulted from an extensive evaluation of the site and all relevant factors. This plan sets forth the local legislative body's policies and public actions which will guide future decisions and implementation strategies.

The plan is organized into six (6) chapters - each dealing with a particular functional area. Section I is the introduction. Its purpose is to clarify the objective of this study and define how it will be integrated into the larger planning framework of the City.

Section II examines the 1970 Master Plan land use recommendations for the planning area and assesses its relevancy to today's conditions.

Section III reviews the physical characteristics of the planning area relative to natural and man-made attributes and liabilities. This will give the Commission a clearer understanding of the existing character of the neighborhood and its immediate geographic setting.

Section IV reviews market conditions in the I-270 corridor with specific emphasis on this planning area and its location in the corridor.

Section V analyzes proposed public improvements in Area 12 and the ability to attract and accommodate additional development.

Section VI presents the proposed Land Use Plan.



Viola D. Hovsepian
Mayor

Stephen Abrams
Councilman

Peter R. Hartogensis
Councilman

Douglas M. Duncan
Councilman

John Tyner II
Councilman

Larry N. Blick
City Manager

Helen M. Heneghan
City Clerk

Paul T. Glasgow
City Attorney

James M. Davis
Director of Planning

Ordinance No. 11-85

Ordinance: To adopt the "Planning Area 12 Neighborhood Plan" as an amendment to the adopted Master Plan for Rockville.

WHEREAS, the City of Rockville Planning Commission (hereinafter referred to as the Commission), under the provisions of Section 3.07 of Article 66B of the Annotated Code of Maryland may recommend adoption of a Plan for the whole or any part of the City, and may recommend adoption of any amendment or extension of or addition to the Plan; and

WHEREAS, pursuant to Section 3.08 of Article 66B of the Annotated Code of Maryland, the Mayor and Council of Rockville did, by Ordinance No. 14-73, adopt, with amendments, the 1970 Master Plan for Rockville as the Plan for the City of Rockville; and

WHEREAS, the Mayor and Council did instruct the Commission in the Master Plan to proceed to formulate and detail individual plans for neighborhoods in the City, pursuant to requirements contained in Section 3.05 of Article 66B of the Annotated Code of Maryland, it being the intention of the Mayor and Council that such plan(s) become an amendment to the Plan for the City of Rockville; and

WHEREAS, the Commission did cause to have prepared, pursuant to the provisions of Article 66B of the Annotated Code of Maryland, a plan for Planning Area 12, entitled "Planning Area 12 Neighborhood Plan," and in preparation thereof did make careful and comprehensive surveys and studies of present conditions and future growth of Planning Area 12, with due regard to its relation to neighboring property and territory; and

WHEREAS, said "Planning Area 12 Neighborhood Plan" was prepared with the general purpose of guiding and accomplishing the coordinated, adjusted, and harmonious development of Planning Area 12 and the City which will, in accordance with the present and future needs of said area and of the City, best promote the health, safety, morals, order, convenience, prosperity, and general welfare, as well as efficiency and economy in the process of development; including, among other things, adequate provision for light and air, conservation of natural resources, the prevention of environmental pollution, the promotion of good civic design and arrangement, wise and efficient expenditure of public funds, and the adequate provision of public utilities and other public requirements; and

WHEREAS, the Commission did refer a copy of said "Planning Area 12 Neighborhood Plan" to all adjoining planning jurisdictions, and to all State and local jurisdictions that have responsibility for financing or constructing public improvements necessary to implement the "Planning Area 12 Neighborhood Plan," at least sixty (60) days prior to the hearing; and

WHEREAS, after preparation of said "Planning Area 12 Neighborhood Plan" the Commission gave notice that a public hearing would be held on said "Planning Area 12 Neighborhood Plan" as an amendment to the Plan for the City of Rockville, on Wednesday, November 20, 1984 at 8:00 PM in the auditorium at Richard Montgomery High School, which notice was published in a newspaper of general circulation in the City of Rockville; and

WHEREAS, the Commission having considered the testimony presented at said public hearing did, by Resolution 2-84, approve and recommend the adoption of the "Planning Area 12 Neighborhood Plan" for the City of Rockville; and

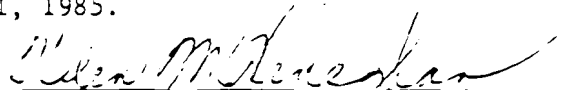
WHEREAS, under the provisions of Section 3.08 of Article 66B of the Annotated Code of Maryland, the Mayor and Council shall adopt amendments to the Plan of the City of Rockville; and

WHEREAS, the Mayor and Council held a public hearing on said "Planning Area 12 Neighborhood Plan" in the Council Chambers of the Stella B. Werner County Office Building in Rockville, Maryland on January 28, 1985; and

WHEREAS, the "Planning Area 12 Neighborhood Plan," as adopted below, makes specific recommendations intended to improve the appearance and function of Planning Area 12 and shall serve as a guide to public and private actions and decisions to insure the development of public and private properties in appropriate relationships:

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF ROCKVILLE, MARYLAND, That the "Planning Area 12 Neighborhood Plan" be and the same is hereby adopted as an amendment to the Plan for the City of Rockville, said "Planning Area 12 Neighborhood Plan" consisting of the publication entitled "Planning Area 12 Neighborhood Plan," Rockville, Maryland, dated March 1985, which publication includes the changes made by the Mayor and Council.

I hereby certify that the foregoing is a true and correct copy of an Ordinance adopted by the Mayor and Council of Rockville at its meeting of the 8th of April, 1985.


Helen M. Heneghan, City Clerk

CITY OF ROCKVILLE PLANNING COMMISSION

LEAH K. BARNETT
CHAIRMAN

DONALD BOEBEL
COMMISSIONER

CARLOS CABAN
COMMISSIONER



GRANVILLE PAULES
COMMISSIONER

JAMES VITOL*
COMMISSIONER

* Mr. Vitol replaced Commissioner Hartogensis on December 3, 1984.



ROCKVILLE

City of Rockville □ Maryland Avenue at Vinson □ Rockville, Maryland 20850-2364 □ (301) 424-8000

December 19, 1984

Mayor Viola D. Hovsepian
City of Rockville
111 Maryland Avenue
Rockville, MD 20850

Dear Mayor Hovsepian:

RE: Approved Planning Area 12 Neighborhood Plan

The Planning Commission herewith forwards for the consideration of the Mayor and Council of Rockville the Approved Neighborhood Plan for Area 12. The plan is in the form of a document under the same title and includes in its appendices a recommended zoning ordinance text and comprehensive zoning map amendment as the primary implementing devices.

Article 66B, Section 3.08 of the Annotated Code of Maryland, empowers the Mayor and Council as the local legislative body to adopt the plan by ordinance. It is our understanding that the Mayor and Council intend to hold a public hearing on the plan on January 14, 1985, and has tentatively scheduled public hearings on a zoning ordinance text and sectional zoning map amendments on January 28, 1985.

The Planning Commission stands ready to assist the Mayor and Council in its review and deliberations on the materials attached hereto. Should you have any questions or desire additional information, we are of course available.

Sincerely,

Leah K. Barnett, Chairman
Rockville Planning Commission

LKB:ebw

Attachments

Resolution No. 2-84

RESOLUTION: To approve and recommend the adoption of the Planning Area 12 Neighborhood Plan as an amendment to the Adopted and Approved Plan for the City of Rockville.

WHEREAS, the City of Rockville Planning Commission (hereinafter referred to as the "Commission"), under the provisions of Section 3.07 of article 66B of the Annotated Code of Maryland may recommend adoption of any amendment for the whole or any part of the City, and may recommend adoption of any amendment or extension of or addition to the Plan; and,

WHEREAS, the Commission previously adopted a Master Plan for the City of Rockville, Maryland, on July 29, 1970; and,

WHEREAS, the Mayor and Council did instruct the Commission through the 1970 Master Plan to proceed to formulate and detail neighborhood plans for Rockville pursuant to requirements contained in Article 66B, section 3.05 of the Annotated Code of Maryland, it being the intention of the Mayor and Council that the final neighborhood plans become amendments to the Plan for the City; and,

WHEREAS, the Commission did cause to have prepared pursuant to Section 3.05 of Article 66B of the Annotated Code of Maryland, a plan for the Planning Area 12 neighborhood of Rockville, Maryland, entitled Planning Area 12 Neighborhood Plan; and,

WHEREAS, the Commission in preparation of said Planning Area 12 Neighborhood Plan, which corresponds to a major geographical section of the city as defined therein, did make careful and comprehensive surveys and studies of present conditions and future growth within Planning Area 12, with due regard for its relation to neighboring property and territory; and,

WHEREAS, the Planning Area 12 Neighborhood Plan was made with the general purpose of guiding and accomplishing the coordinated, adjusted and harmonious development of a section of Rockville and its environs which will, in accordance with present and future needs, best promote health, safety, morals, order, convenience, prosperity, and general welfare, as well as efficiency and economy in the process of development, including among other things, adequate provisions for traffic, and promotion of public safety, adequate provision for light and air, conservation of natural resources, the prevention of environmental pollution, the promotion of good civic design and arrangement, wise and efficient expenditure of public funds, and the adequate provisions of public utilities and other public requirements; and,

WHEREAS, after the preparation of said Planning Area 12 Neighborhood Plan as a proposed amendment to the Plan for the City, the Commission gave notice of the time and place of public hearings to be held on said Planning Area 12 Neighborhood Plan as an amendment to the Plan for the City by giving notice in a newspaper of general circulation in the City; and

WHEREAS, the Commission did refer copies of said Planning Area 12 Neighborhood Plan to all adjoining planning jurisdictions, and to all State and local jurisdictions that have responsibility for financing or constructing public improvements necessary to implement the "Planning Area 12 Neighborhood Plan," at least sixty (60) days prior to the public hearing; and,

WHEREAS, the Commission held a public hearing on said Planning Area 12 Neighborhood Plan in Richard Montgomery High School in Rockville, Maryland, on November 20, 1984; and,

WHEREAS, the Planning Commission did take into consideration testimony presented at said public hearing and now desires to present its recommendations for an amendment to the Plan for the City of Rockville, Maryland; and,

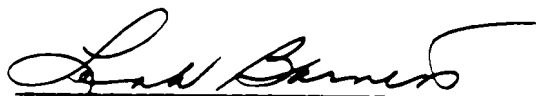
WHEREAS, this Planning Area 12 Neighborhood Plan is intended to focus public attention on fundamental aspects of City planning and to present a series of specific action recommendations intended to improve the appearance, design, function, and stability of Rockville's neighborhoods; and,

WHEREAS, the neighborhood planning and development policies recommended in the Planning Area 12 Neighborhood Plan have been closely coordinated with and represent an extension of development, land use, zoning, transportation, housing, and public facility policy contained in the Plan for the City of Rockville, Maryland.

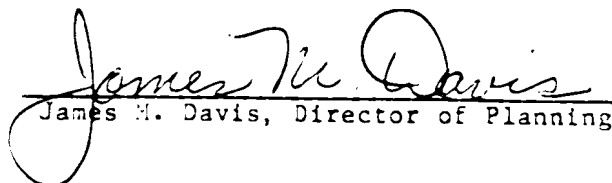
NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of Rockville, Maryland, as follows:

1. That the Planning Area 12 Neighborhood Plan be and the same is hereby approved and recommended for adoption by the Mayor and Council of Rockville, Maryland, pursuant to Article 66B, Section 3.08 of the Annotated Code of Maryland as an amendment to the Plan for the City of Rockville, Maryland, dated December 19, 1984.

We certify that the above is a true and correct copy of a Resolution adopted by the Planning Commission of the City of Rockville, Maryland, at its meeting of December 19, 1984.



Leah K. Barnett, Chairman
Rockville Planning Commission



James M. Davis, Director of Planning

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I. Introduction

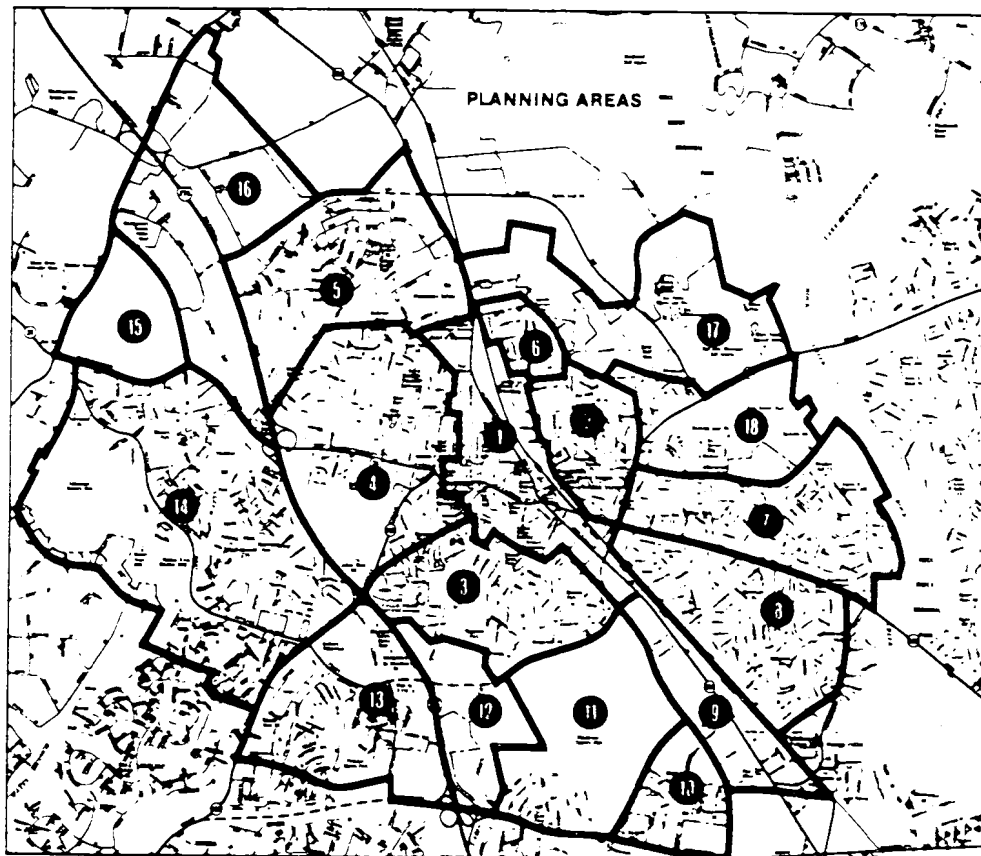
A. The Planning Context

Planning Area 12 is one of 18 planning areas established by the City for the purpose of conducting detailed surveys and studies. By subdividing the City into smaller units, the Planning Commission may systematically examine select areas of the City in the context of the approved and adopted Master Plan (Map 1).

B. The Master Plan

The approved and adopted Master Plan for Rockville is a guide to the physical, social, and economic development of the city. In and of itself, it neither grants nor compels rezoning. Government is not required to rigidly follow the recommendations of a master plan. However, the Plan does provide a consensus "blueprint" of what the community as a whole desires for itself.

The Master Plan focuses on land use and zoning as the primary means by which government exercises leadership and influence over the



MAP 1

present and future use of land. In preparing this plan, the Commission carefully examined the development forces influencing this area of the city, and concluded that the 1970 Master Plan land use recommendations are in need of update to reflect changing circumstances and conditions.

The 1970 Master Plan emphasizes improvement in the quality of life in order to make Rockville the best possible residential community -- a community with a strong and diversified economic base, a variety of places to work and shop, a wide range of housing types and prices, cultural facilities, and outstanding public services. It seeks to provide for future community needs by setting aside sufficient land in reserve to accommodate growth and expansion needs of all the sectors of the community.

All 18 planning areas can be subjected to a neighborhood scaled planning process regardless of land use or economic orientation. Due to the unique characteristics of a particular planning area, the steps in the process of developing a plan may differ. However, the central character in all of this is the approved and adopted Master Plan for the City. For this reason, all neighborhood scaled plans, regardless of orientation, must conform to and promote the goals and objectives of the City as reflected in the Master Plan.

This planning process for Area 12 offered an opportunity to more closely analyze and explore alternative solutions to land use, housing, economic development, transportation, and related issues in the context of the adopted Master Plan.

C. Contents of this Report

This report is divided into six sections. Section I is the introduction. Its purpose is to clarify for all parties concerned the objective of this study and how its products will integrate into the larger planning framework of the City.

Section II examines the 1970 Master Plan land use recommendations for the planning area and assesses its relevancy to today's conditions.

Section III reviews the physical characteristics of the planning area relative to natural and man-made attributes and liabilities. This will give a clearer understanding of the existing character of the neighborhood and its immediate geographic setting.

Section IV reviews market conditions in the I-270 corridor with specific emphasis on this planning area and its location in the corridor.

Section V analyzes proposed public improvements in Area 12 and the ability to attract and accommodate additional development.

Section VI presents the recommended land use plan for the planning area including a development staging program.

E. Findings of Public Purpose

It is proposed that this plan become an amendment to the 1970 Master Plan for Rockville by updating and expanding on established public policy relative to the physical, social, environmental and economic development objectives of the City for this area.

After having made careful and comprehensive surveys of present conditions and future growth potential of the planning area, and, having given due regard to the area's relationship to surrounding neighborhoods, the Planning Commission of Rockville, Maryland, has determined that this plan shall be for the purpose of guiding and accomplishing the coordinated, adjusted and harmonious development of the planning area and its environs. It shall promote the public health, safety, and general welfare as well as efficiency and economy in the process of development; including among other things the adequate provision of public facilities and good civic design.1/

1/Article 66-B, Section 3.06 of the Annotated Code of Maryland.

II. The 1970 Master Plan

A. Proposed Land Uses

The Proposed Land Use Plan for Rockville was first adopted in 1960 and subsequently revised and readopted in 1970 and 1974. Since then there have been a number of amendments and modifications including four neighborhood scaled plans. The 1970 land use recommendations of the Master Plan for Planning Area 12 are summarized on table 1 and map 2.

Table 1

1970 Master Plan

Land Use Recommendations and Current Status of Development

<u>Recommended Land Use</u>	<u>Total Area</u>	<u>Developed Area</u>	<u>Vacant</u>
Restricted Industrial	60.7 ac.	29.8 ac.*	30.9 ac.
Public Buildings & Facilities	23.7 ac.	-	23.7 ac.
Detached Residential (2.5 to 4 units/ac.)	16.5 ac.	-	16.5 ac.
Public Park and Open Space (including a 14-acre lake)	71.1 ac.	-	71.1 ac.
Institutional	40.2 ac.	-	40.2 ac.
Street Rights-of-Way	19.8 ac.	3.3 ac.	16.5 ac.
TOTAL PLANNING AREA 12	237.0 ac.	33.1 ac.	203.9 ac.

Source: City of Rockville, Md. 1970 Master Plan.

*311,000 gross square feet of floor area existing.

The development that has taken place in the Planning Area has been in accordance with the land use recommendations of the 1970 Master Plan.

B. Relationship of the Plan to Existing Zoning

Existing zoning for the Planning Area is shown on the following map and table.

Table 2

Planning Area 12 Existing Zoning

<u>Zone</u>	<u>Acreage</u>
I-3 Industrial Park	61.5 acres
R-S	145.5 acres
R-90	29.5 acres
<hr/>	
Total	236.5 acres

Source: City Department of Planning

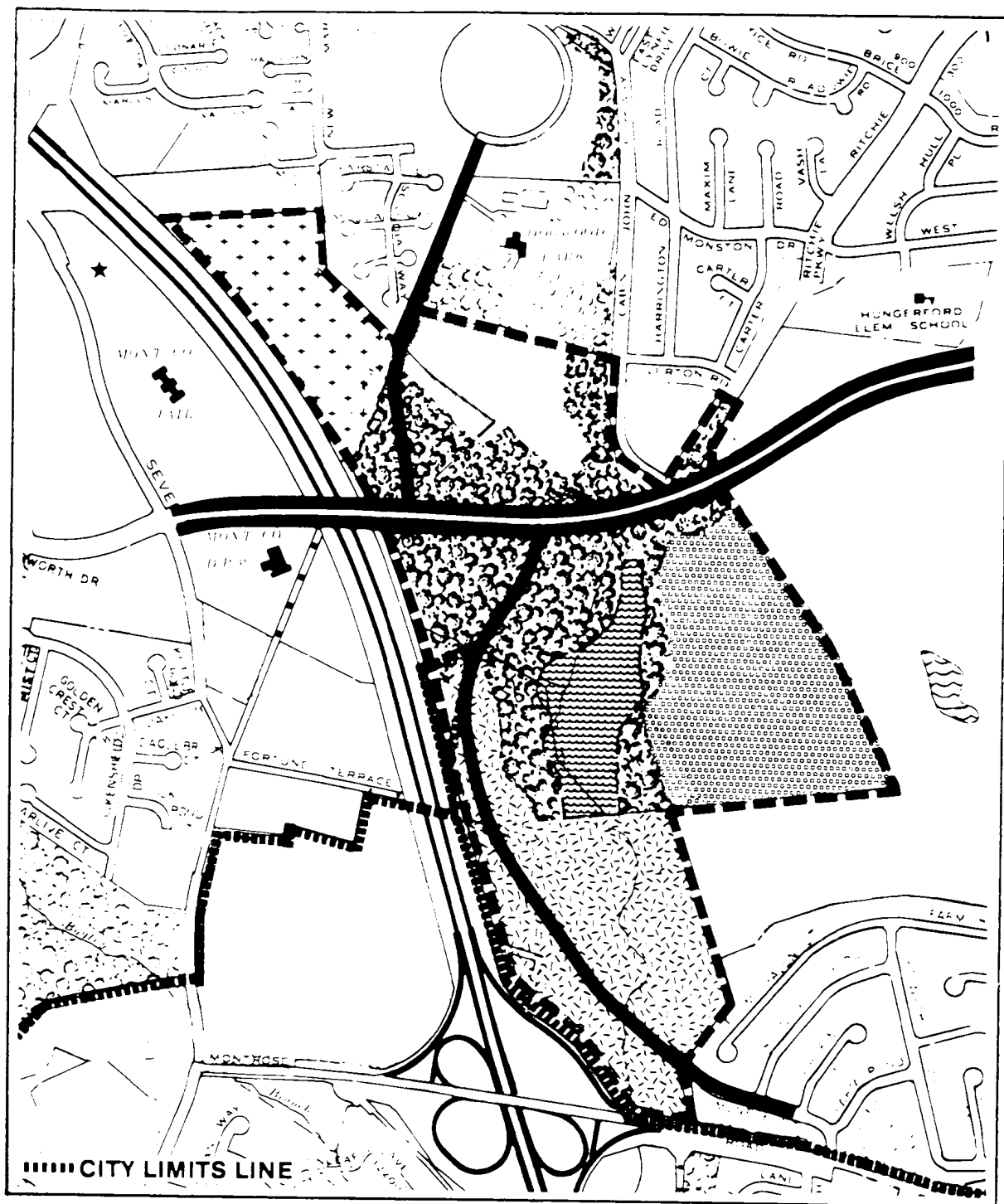
1. Restricted Industrial Zone (I-3)

"The I-3 zone is intended to provide an open, attractive environment for certain office uses and low intensity industrial activities. The standards and restrictions of the zone are designed to provide external effects or amenities compatible with surrounding or abutting residential zones. To this end, development is limited to a low concentration (0.5 FAR) and uses are restricted to those activities that can be operated in a clean and quiet manner and which will be least objectionable to adjoining residential zones."^{2/}

Within the City, 472 acres (or 6% of the City) are in the I-3 and I-4 zones. Of this amount, 414 acres have developed to approximately 5.9 million square feet at a development density of 0.33 FAR. The concentration of this zoning is on the periphery of the City near Shady Grove Road and along I-270 north of MD Rte 28 and south of Falls Road. In all, 61.5 acres are zoned I-3 within Planning Area 12.

It is estimated that approximately 16,000 persons are employed in the I-3/I-4 zones today. This represents nearly one-half of the total jobs in Rockville.

^{2/}City of Rockville, Zoning and Planning Ordinance, (Art. 3, Div. 1, Sect. 3-102, as amended.) (F.A.R. means floor area ratio) p. 62.









PLANNING AREA 12

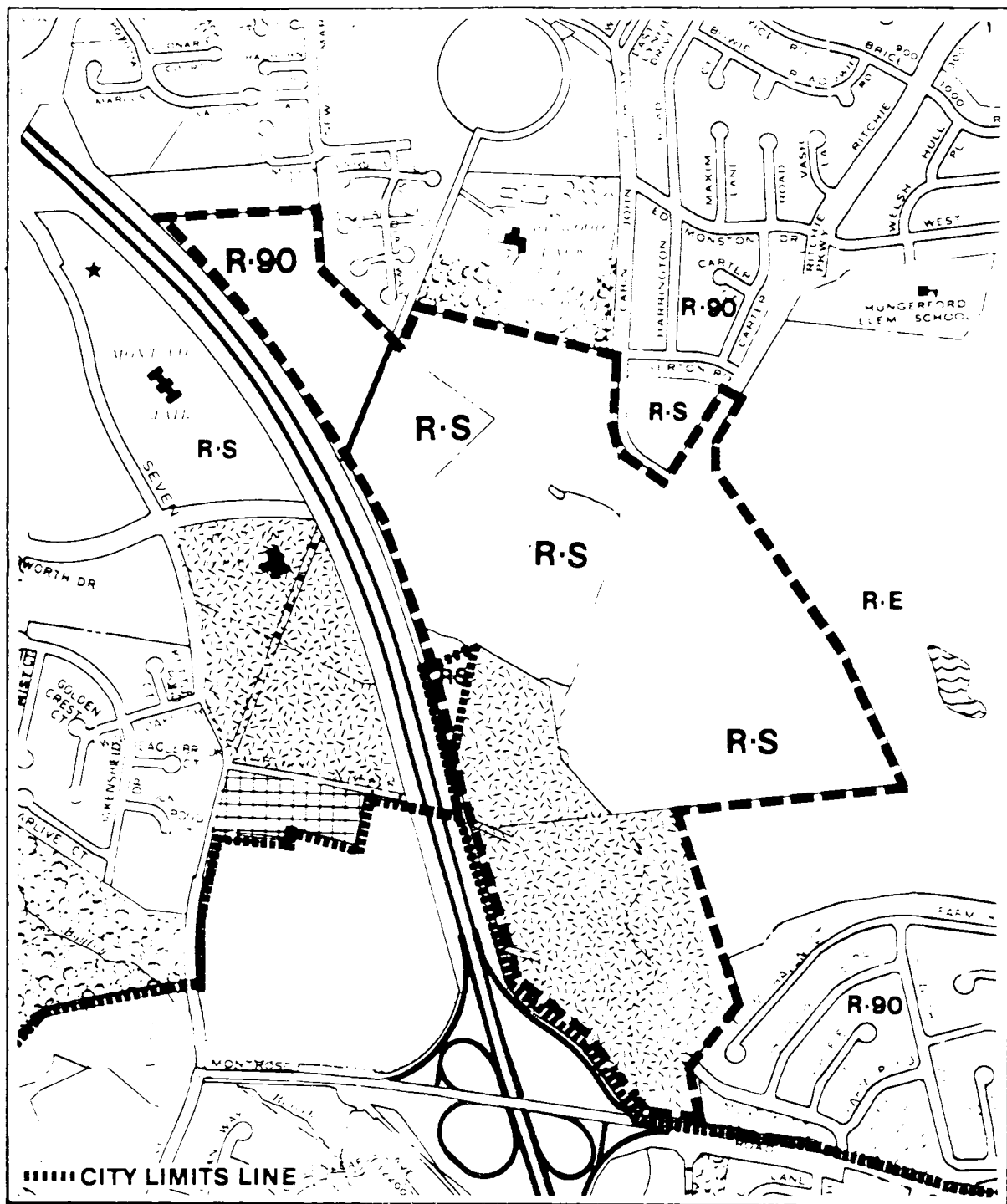
SCALE 1" : 1000'

NORTH ▲

ADOPTED MASTER PLAN (LAND USE RECOMMENDATIONS)

MAP 2

-  RESTRICTED INDUSTRIAL
-  SINGLE FAMILY DETACHED RESIDENTIAL
-  PUBLIC PARK AND OPEN SPACE
-  PUBLIC FACILITIES
-  INSTITUTIONAL
-  LAKE



PLANNING AREA 12

SCALE 1" : 1000'

NORTH ▲
MAP 3

EXISTING ZONING

- C-1** LOCAL COMMERCIAL
- I-3** INDUSTRIAL PARK
- R-90** R-90 SINGLE FAMILY DETACHED
- R-S** R-S SINGLE FAMILY DETACHED
- R-E** R-E SINGLE FAMILY DETACHED

2. Suburban Residential Zone (R-S)

Prior to the latest Citywide comprehensive rezoning (1975), virtually all of the Planning Area was classified in the suburban residential (R-S) zone. As with most large tracts of undeveloped land, the R-S zone represented a low yielding residential density of 2.2 dwelling units per gross acre (minimum lot size of 20,000 square feet). The R-S zone is of such a low development density in the City that it has not proven to be economically viable to develop for residential subdivisions. Where land previously zoned R-S has developed, it has either been at a higher residential density through rezoning or to an institutional use (government or private) through the special exception process.

In 1975, portions of the Poor Farm (75%) were rezoned to the R-90 zone to complement the prevailing zoning in the adjoining New Mark Commons neighborhood. At the time, the property was owned by Montgomery County and used as a paupers' cemetery. There was no thought that this property would be surplusd in the near future.

Today, the R-S zoned property (62% of the Planning Area) is undeveloped.

3. One-Family Detached, Restricted Residential Zone (R-90)

The R-90 zone permits a development density of approximately 4.0 units per gross acre. This is the premier residential development zone of the late 1960s and to the present. All of the residentially zoned land in the city south of Rte 28 and west of I-270 is zoned R-90 and developed using the residential planned unit (PRU) special development procedures. With the exception of the Hungerford-Stoneridge neighborhood, the residentially developed properties north, east, and south of Planning Area 12 are zoned R-90 and have taken advantage of the variable lot size, cluster, or PRU special development procedures.

The R-90 zone has become the lowest density single-family detached zoning classification acceptable to the home building industry for large tract development. Twelve percent of the planning area is zoned R-90 and is undeveloped.

C. Public Open Space and Recreation

1. 1970 Master Plan Recommendation

Seventy-one acres of Planning Area 12 is recommended for public Open Space and Recreation. Fourteen acres or 19% of

the area is shown on the Master Plan land use map for use as a stormwater management lake with attendant recreational features. There is no information in the 1970 Plan relative to how this acreage is to be acquired either by direct purchase or through developer dedication. For stormwater management purposes, the funding mechanism will be the stormwater management fund under Chapter 17 of the Laws of Rockville.

2. Prevailing Practice

Historically, the City has maintained a direct relationship between open space and recreation acreage and population. The 1970 Master Plan suggests the minimum provision of 10 acres per 1,000 population with almost half of that in playgrounds, playfields and play lots. In Rockville, existing conditions equate to approximately 15.3 acres per 1,000 population.

If we applied the City's practices to the Master Plan land use map based on planned resident population in Area 12, 3.05 acres of parkland would be required. 3/

3. What Is Appropriate for Park and Open Space Land

Clearly, there is a difference between the Master Plan's recommended public open space and recreation acreage (71 acres) and what would be required based on the master planned future resident population (3.05 acres). There is no information in the 1970 Master Plan to indicate City intentions to create a Citywide or regional scaled recreation facility in this area.

Approximately 5 acres of land not within the flood plain should be set aside for parkland. Approximately half of the land (including the 5-acre public parkland and areas within the flood plain) should be retained as private open space as part of a planned unit development approval process.

D. Relevancy of the 1970 Land Use Plan to Conditions Today

Public and private decisions made since the adoption of the Master Plan in 1970 have led to events and actions altering the intent of the Plan. Included among those are: the surplus by Montgomery County government of the "Poor Farm" property totalling 39 acres originally planned for public facilities; the abandonment of plans by private interests for establishing a recommended private institutional use (cemetery) on approximately 41 acres; and the reduction by the City of the

3/Based on the following formula (acres of residential land (16.6 ac) X density (4.0 dwelling units/acre) X 3.0 persons/dwelling unit X 15.3 acres/1000 population).

size of the proposed stormwater management and recreational lake in the Cabin John stream valley from approximately 22 down to 14 acres because of poor subsoil conditions.

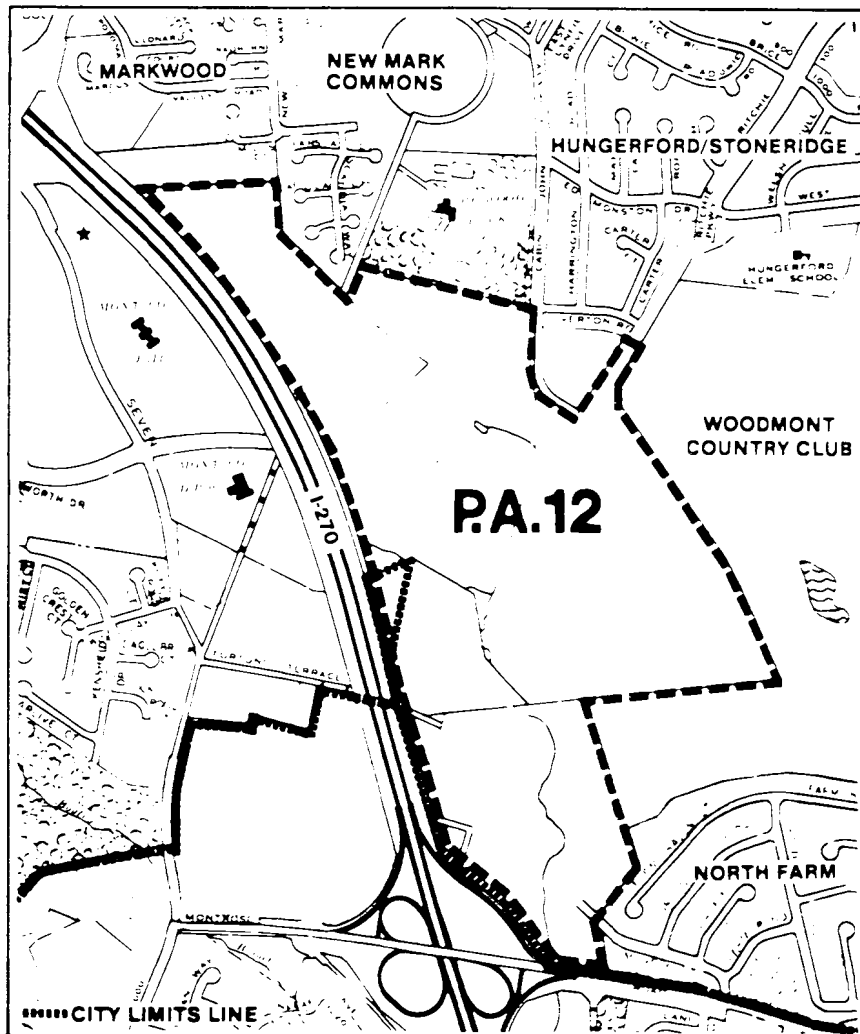
Over the past 12 years, there have been inquiries from private developers about developing the area for residential purposes at the R-90 density (4 units to the acre). The most recent development proposal pending before the City is to develop over a 15-year period upwards to 2.5 million square feet of research, office and corporate headquarters. The economic feasibility of doing this type of development, given access and stormwater management costs, appears to be acceptable to the developer.

Due to these changes in land use emphasis and the most recent private sector comprehensive planned development proposal for the area, the Commission believes that, the 1970 Master Plan's land use recommendations should be reexamined. 4/

4/Includes the following: Poor Farm - 39 ac.; Institutional - 41 ac.; and Open Space - 37 ac. (71 minus 14 (lake) minus 20 (park) = 37 ac.)

III. Physical Characteristics

Planning Area 12 is one-third square mile in size or 237 acres. As such it represents 3% of the corporate area of Rockville. It is located 1 mile southwest of Town Center and is bounded on the north by the residential neighborhoods of Markwood and New Mark Commons and the City-owned Dogwood Park; on the east by the Hungerford/Stoneridge Swim Club and the Woodmont Country Club; on the south by the North Farm residential subdivision and Montrose Road; and along the entire western border of the planning area (1-1/4 miles in length) by Interstate 270 (I-270), a six-lane divided highway. At the northern and southern ends of the western boundary are the future Falls Road/I-270 full interchange and the existing Montrose Road/I-270 interchange (Map 4).



PLANNING AREA 12

SCALE 1" = 1000'

NORTH ▲
MAP 4

The length of common boundaries with other land use categories is reflected in the table below:

TABLE 3

Planning Area 12

Perimeter Land Uses

<u>Land Use</u>	<u>Length in Feet</u>	<u>Percent of Total</u>
Residential	2,170	12.2%
Public Parkland & Open Space	1,610	9.0%
Private Recreation & Open Space	5,780	32.4%
Vacant	1,450	8.0%
Interstate Highway	<u>6,850</u>	<u>33.4%</u>
Totals	17,860	100.0%

Source: City of Rockville, Department of Planning, measured from 200' scale property maps.

1. Natural Features

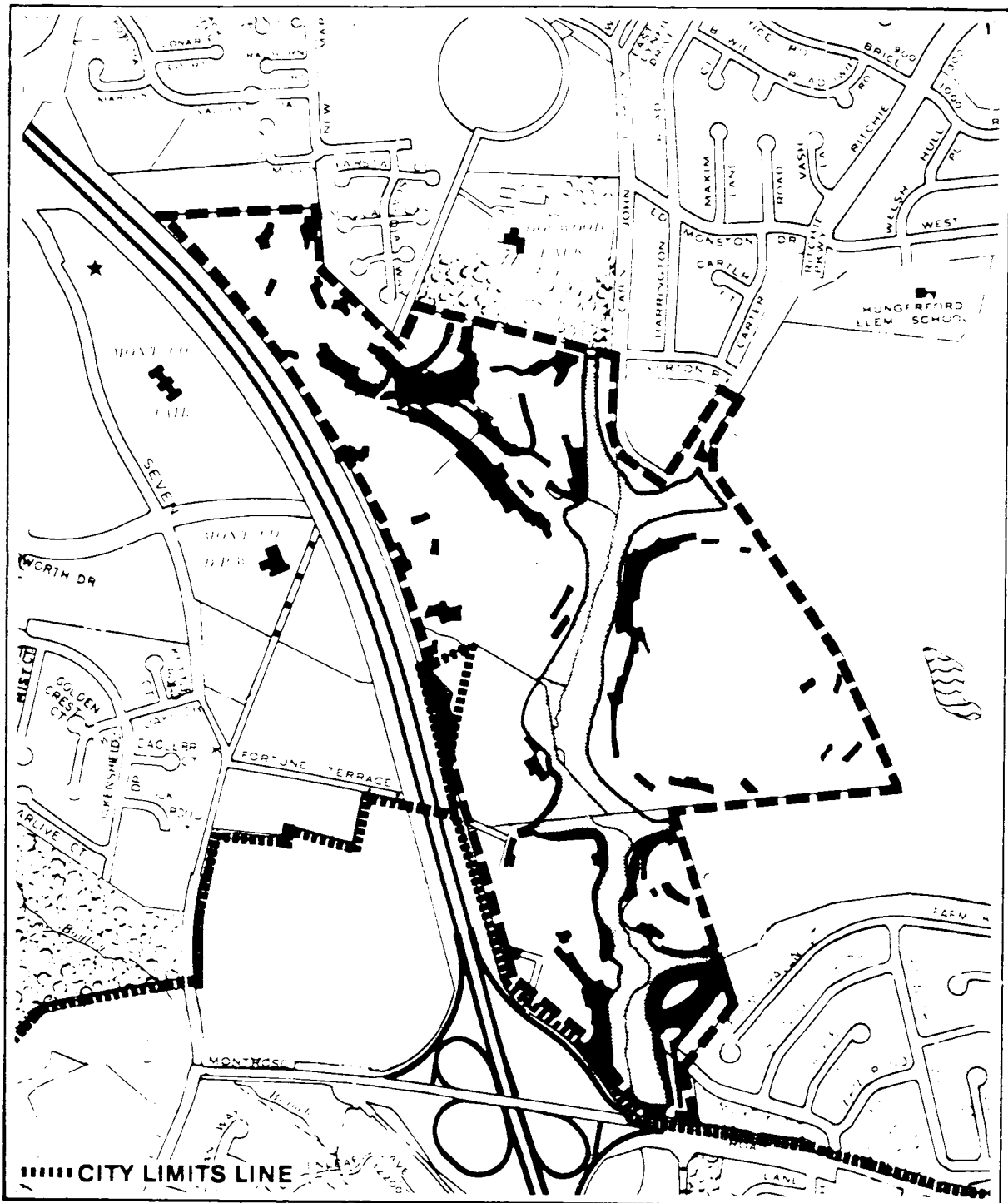
Planning Area 12 represents one of the last large parcels of undeveloped land in the City. It is also one of the most desirable areas for development in both the City and in the I-270 corridor. The area is bisected by the Cabin John Creek, which flows from north to south--from the terminus of the Cabin John Parkway to Montrose Road.

1. Topography

Located in the headwaters of the Cabin John Branch, a tributary of the Potomac River, the Planning Area is within the Piedmont physiographic province. The area is characterized by its gently rolling, upland topography punctuated by shallow ravines (Map 5).

a) Steep Slopes

Approximately 16 acres or 7% of the Planning Area has slopes in excess of 15%. Development on slopes in excess of 15% is not advised because of engineering and soil stability problems.



PLANNING AREA 12

SCALE 1" : 1000'

NORTH ▲

NATURAL FEATURES

MAP 5

■ SLOPES GREATER THAN 15%

▬ 100 YEAR FLOOD PLAIN

b) Flood Plain

Approximately 38 acres or 16% of the Planning Area is in 100-year flood plain. Under City development code, land within the 100-year flood plain of streams may not be subdivided except for conservation purposes. Any development within the flood plain is prohibited unless permits are obtained from both the City and the State Department of Natural Resources. Typically, development that has received permits includes public works projects such as streets and highways, water and sewerage facilities, and stormwater management projects.

Private development within the 100-year flood plain is both discouraged and severely restricted. Where it was permitted, compensating flood plain storage was required as a precondition of any permitted encroachment into the flood plain.

c) Wetlands

Approximately 1 acre within the planning area has been identified as wetland containing a biologically balanced ecosystem that should not be disturbed. The wetland is located within the 100-year flood plain as indicated on map 5.

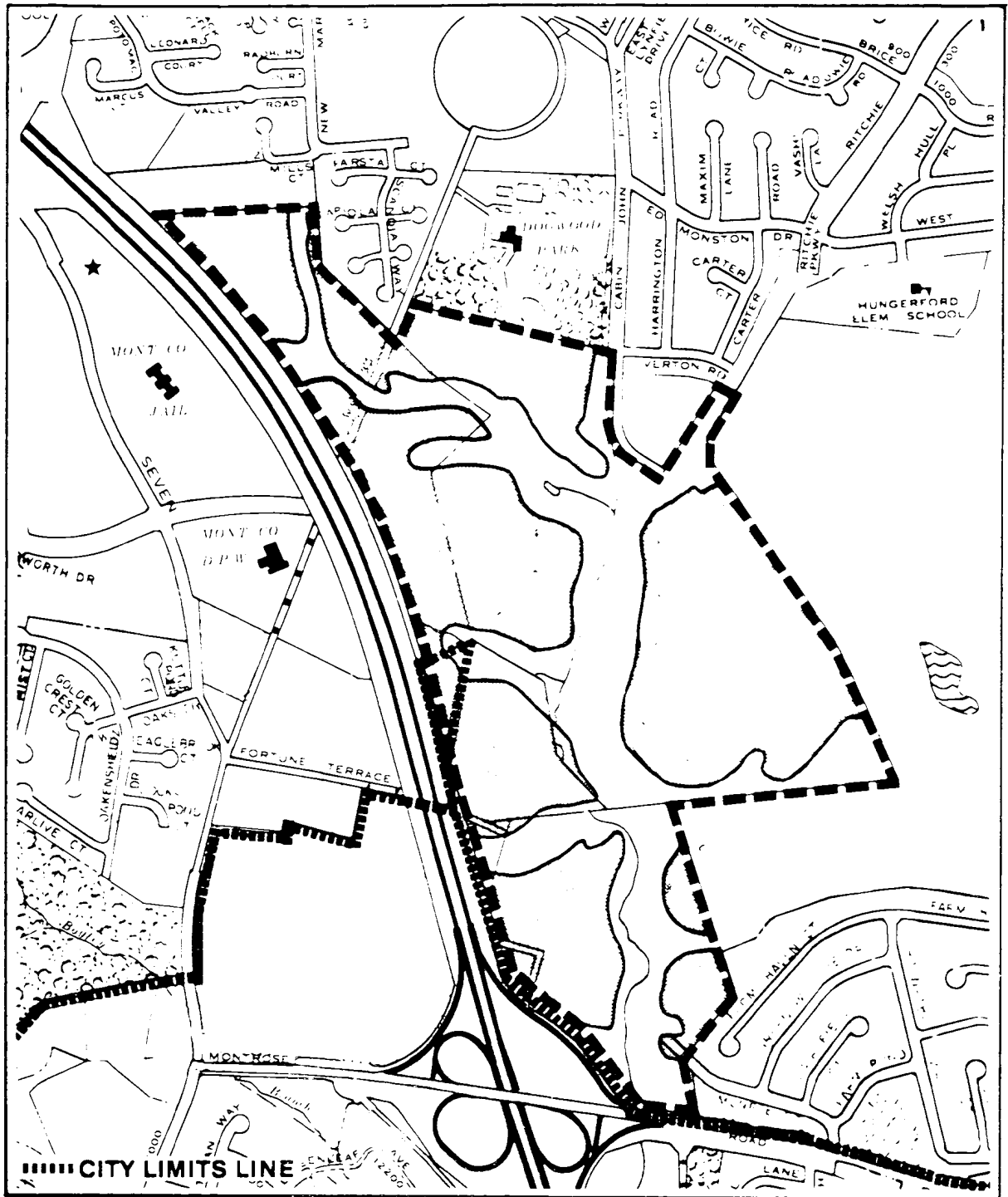
The wetland occurs within a shallow upland basin with a standing water depth of a few inches. Vegetation includes hardwoods, cattails, sedges, and rushes. It is used by ducks for nesting and rearing ducklings. Songbird, opossum, raccoon, rabbit and deer populations frequent the wetland area.

It is a Patristine Forested wetland compound of broad-leaved deciduous trees and appears to be largely fed by stormwater runoff. Precautions taken during construction would ensure maintenance of proper stormwater drainage.

2. Soils

An examination of the Montgomery County Soil Survey ^{5/} reveals that approximately 84% of the planning area is made up of the Glenelg-Manor and Chester associations, which consist of well drained, gentle to strongly sloping soils that are

^{5/}USDA, Soil Conservation Service. Soil Survey, Montgomery County, Maryland. (Series 1958, No. 7) USGPO; Washington, D.C., October 1961.



PLANNING AREA 12

SCALE 1" = 1000'

NORTH ▲

SOILS SUITABLE FOR DEVELOPMENT

MAP 6



among the most extensive in the county. The Glenelg silt loam occupies most of the gently sloping uplands of the planning area. Erosion is easily controlled. The Manor silt loam is good pasture land (Map 6).

In the areas of the stream valleys and flood plain, the soil characteristics change to predominantly Wehadkee silt loam and Worsham silt loam. These soil types are directly associated with wetlands and flood plains.

3. Vegetation

Much of the planning area south of Dogwood Park and east of Monroe Street, extending southward to Montrose Road, is wooded with mixed deciduous and coniferous tree stands. The deciduous association includes tulip popular and sycamore green, ash, box-elder, silver maple, etc.

Scrub tree growth occurs on the County "Poor Farm" and Oak Ridge school sites.

The area provides habitat for large and small fauna which is dominated by deer and small species such as racoon, squirrel, and rabbit. Bird species as large as turkeys are found along with numerous native songbirds and water fowl. Reptiles such as various species of snakes and reptiles exist in the area.

3. Public and Private Improvements

1. Existing Land Use

Of the approximate 240 acres in Planning Area 12, only 33 acres have been developed. This consists of 2 sites in the south end of the Planning Area that have been developed in the Industrial Park Zone (I-3) for office and light industrial use. Access to these sites is via Monroe Street, an arterial class city street. All remaining land (207 acres) in Planning Area 12 is vacant and generally inaccessible by public street.

The existing and surrounding land use pattern in Planning Area 12 is shown on Map 7.

As shown on Table 3, 88% of the boundary of Planning Area 12 abuts nonresidential land uses. Of the 12% abutting existing residential uses, the adjoining subdivisions (New Mark Commons and Markwood) are oriented away from the Planning Area with all abutting lots fronting on streets interior to the subdivisions and having, principally, a rear lot-line boundary to Planning Area 12.

Of the 32% of private recreation land abutting the Planning Area boundary, 14% consists of the Hungerford-Stoneridge Swim Club and the balance (86%) the Woodmont Country Club.

Thirty-eight percent of the boundary, more than 1 and 1/4 miles, fronts on I-270.

2. Access

Development in Planning Area 12 has been retarded due to lack of access. With the construction of I-270 (originally Rte. 240) in the late 1950s, access to a majority of the properties in Planning Area 12 was severed. With access denied to the interstate, the severance from Monroe Street by the new highway's construction and of the street system in the Wheel-of-Fortune subdivision, the properties in Planning Area 12 remained inaccessible for development purposes. The County's ownership of and lack of improvements to the "Poor Farm" property further restricted access. It was not until construction of the south leg of Monroe Street (extending northward from Montrose Road in the late 1970s occasioned by limited industrial park development) that any substantial access became available to properties in this area.

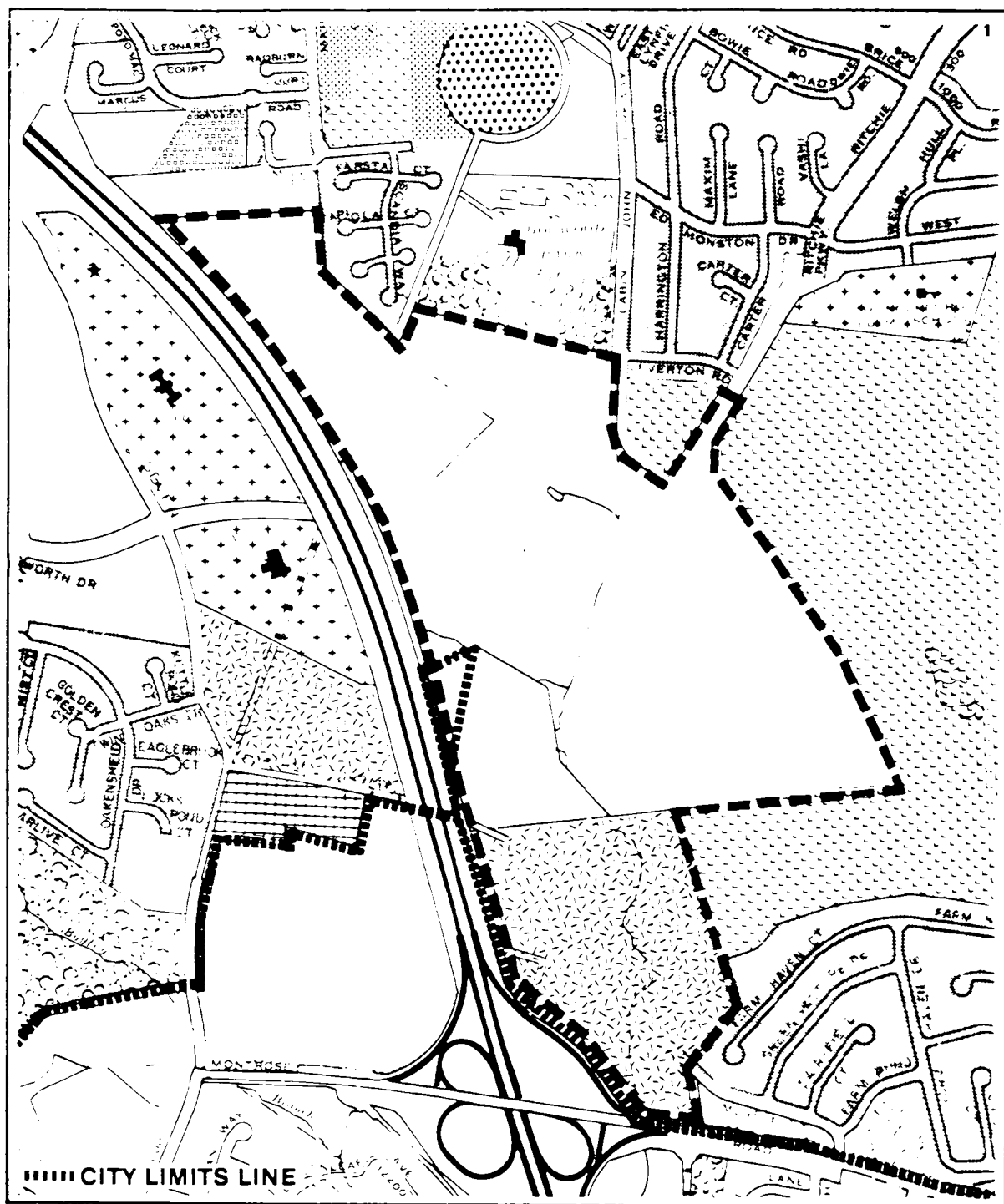
The proposed alignment of Ritchie Parkway, an arterial street planned to provide the principal access to Planning Area 12, was altered in the 1970 Master Plan. The original alignment, now known as old Ritchie Parkway, is improved to a point 300 feet northeast of Planning Area 12. New Ritchie Parkway will skirt the Hungerford-Stoneridge neighborhood along Woodmont Country Club. Map 8 shows the 1970 Master planned points of access to the Planning Area.

Possibly the most important element in analyzing development opportunities and constraints in the Planning Area is the provision of adequate highway access. The programmed construction of Ritchie Parkway, particularly, across I-270 to intersect Seven Locks Road and by the extension of the south leg of Monroe Street between Montrose Road and Ritchie Parkway will open this area of the City to development.

3. Water and Sewerage Systems

a) Water

The City of Rockville owns and operates an 8 mgd nominal capacity water treatment plant that obtains its water from the Potomac River. There is also a series of agreements between the Washington Suburban Sanitary Commission (WSSC) and the City that permits the City to purchase additional gallons of potable water on an as-needed basis.



An existing 12-inch diameter water main parallels I-270 from Monroe Street on the north (near Dogwood Park) to Monroe Street on the south. This water main provides service to the existing industrial and office development in the southern section of the Planning Area and to the North Farm subdivision.

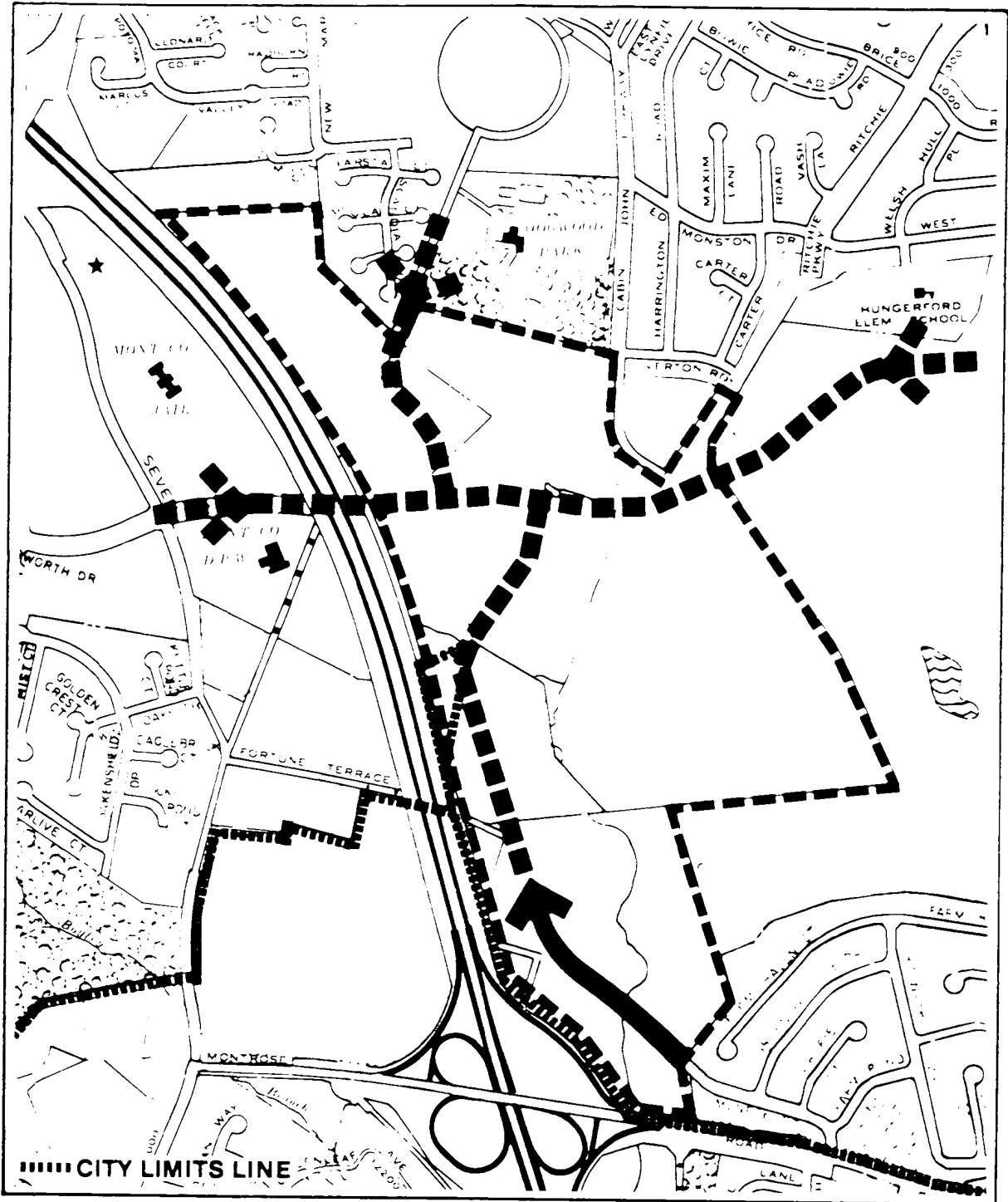
With the extension of Ritchie Parkway from Seven Locks Road to MD Rte 355, there is an opportunity to strengthen the water delivery system and complete a systems "loop" by a new parallel water main using the Ritchie Parkway and north Monroe Street rights-of-way. This systems extension would provide adequate water pressure to meet fire fighting requirements in the future.

b) Sewerage

In 1975, the City purchased 9.3 mgd rights capacity in the regional sewage treatment plant at Blue Plains in the District of Columbia. Complementing agreements with the WSSC over sewage conveyance rights in their system assures through the year 2000 adequate sanitary sewerage facilities to accommodate future development wherever it may occur in the City.

C. Attributes and Liabilities

There are no overriding physical limitations or liabilities associated with the development of the Planning Area. The terrain, vegetation, and soils indicate this to be quality land for development. The presence of flood plain land (16% of this area), steep slopes, and gently rolling terrain present considerable opportunity for inventiveness in site plan design and development that could blend into the natural environment and enhance the overall development setting.



PLANNING AREA 12

SCALE 1" : 1000'

**NORTH ▲
MAP 8**

**EXISTING AND 1970 MASTER PLAN
POINTS OF PUBLIC ACCESS TO PLANNING AREA**

IV. Market Conditions - I-270 Corridor

Over the last decade, the I-270 corridor has emerged as a major center of office, research, and corporate headquarters in the northeastern United States. The City of Rockville has participated actively in this economic growth. Office/industrial parks totalling over 5 million square feet of space have been built within the City limits, generally centered around Research Boulevard, Piccard Drive, and Shady Grove Road off of I-270.

From a base of zero in the early 1960s, "campus type research and office" space now (1984) accounts for close to 75% of all office space in Rockville (see Table 5) and over 16% of the total assessable property tax base in the City. Furthermore, Rockville has consistently captured about 30% of the total Montgomery County market for the last decade (see Table 6).

Economic growth is projected to continue in Rockville and in Montgomery County as a whole. The number of jobs in Rockville is expected to grow by almost 6,400 between 1984 and 1988 ^{6/} to over 43,800 jobs. Some of the most rapidly growing employment categories will be those associated with "high tech" industries as shown below:

TABLE 4

PROJECTED EMPLOYMENT GROWTH BY EMPLOYMENT CATEGORY

MONTGOMERY COUNTY, MARYLAND

1982-1988

<u>Occupation</u>	<u>Annual Growth Rate</u>
Electrical and Electronic Assembler	20.24%
Science Technician	13.59%
Systems Analyst	16.11%
Computer Programmer	14.73%
Electrical and Electronic Technician	13.73%
Keypunch Operator	13.71%

Source: Montgomery Office of Economic Development. "Brief Socioeconomic Facts about Montgomery County, Maryland." January, 1984, p. 39.

^{6/}City of Rockville Planning Department. Forecasts of Development - Round II Methodology, August, 1983. The employment forecasts do not include employment estimates for Area 12. The net effect of 2.1 million sq.ft. of additional floor area above that reflected here is approximately 5,600 additional employees (see page VI-13).

PRIVATE OFFICE CONSTRUCTION TRENDS

ROCKVILLE, MARYLAND

1959-1984

Table 5

Year ^{1/}	General Office (GSF)		"High-Tech" ^{2/} Office (GSF)		"High-Tech" as Percentage of General (Cumulative)
	Annual	Cumulative	Annual	Cumulative	
1959	24,664	24,664	-	-	0%
1960	0	24,664	-	-	0%
1961	51,200	75,864	-	-	0%
1962	20,000	95,864	-	-	0%
1963	0	95,864	-	-	0%
1964	101,865	197,729	-	-	0%
1965	81,125	278,854	52,325	52,325	18.8%
1966	188,368	467,222	133,604	185,929	39.8%
1967	86,682	553,904	86,682	272,611	49.2%
1968	91,576	645,480	91,576	364,187	56.4%
1969	102,045	747,525	80,000	444,187	59.4%
1970	191,918	939,443	58,418	502,605	53.5%
1971	483,464	1,422,907	180,552	683,157	48.0%
1972	380,483	1,803,390	230,483	913,640	50.7%
1973	302,607	2,105,997	302,607	1,216,247	57.8%
1974	41,648	2,147,645	41,648	1,257,895	58.6%
1975	227,000	2,374,645	22,000	1,279,895	53.9%
1976	246,622	2,621,267	246,622	1,526,517	58.2%
1977	120,466	2,741,733	120,466	1,646,983	60.1%
1978	815,276	3,557,009	815,276	2,462,259	69.2%
1979	525,712	4,082,721	495,712	2,957,971	72.5%
1980	367,823	4,450,544	226,592	3,184,563	71.6%
1981	520,375	4,970,919	520,375	3,704,938	74.5%
1982	662,602	5,633,521	374,902	4,079,840	72.4%
1983	759,135	6,392,656	609,135	4,688,975	73.3%
1984	706,529	7,099,185	167,734	4,856,709	68.4%
TOTAL	7,099,185		4,856,709		68.4%

^{1/} Year building permit issued.

^{2/} As defined by Rockville Planning Department.

Source: Maryland State Department of Assessment and Taxation; Montgomery County Office of Economic Development; Rockville Department of Public Works; Gladstone Associates. Updated Apr. 1985.

TABLE 6

ROCKVILLE MARKET SHARE
HIGH TECH CORPORATE SPACE^{1/}
MONTGOMERY COUNTY, MARYLAND

1966-1984

<u>Year</u>	<u>Rockville Share</u> ^{2/}
1966	5.9%
1967	5.6%
1968	5.1%
1969	10.7%
1970	21.1%
1971	24.5%
1972	31.5%
1973	37.4%
1974	29.5%
1975	29.5%
1976	28.1%
1977	29.3%
1978	31.4%
1979	30.8%
1980	28.7%
1981	29.9%
1982	17.3%
1983	17.6%
1984	20.2%

^{1/} Defined as single-user corporate buildings with high-tech occupants, and R&D buildings.

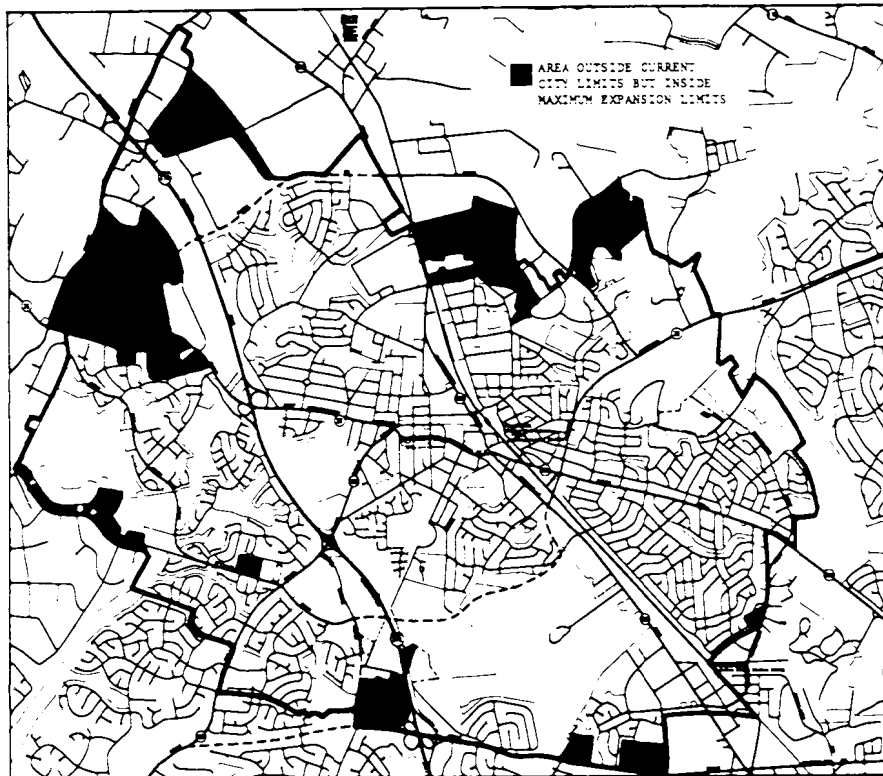
^{2/} Defined as cumulative total high-tech corporate space in Rockville divided by cumulative total for Montgomery County, including Rockville.

Source: Office Building Inventory, Montgomery County office of Economic Development, January 1982; Gladstone Associates. Updated 3/85.

A. Status of Undeveloped Land in Rockville

Out of 7,456 acres of land in Rockville in August 1984, 505 acres or 7% remain to be developed. Another 125 acres are prime for redevelopment. In addition, there are 928 acres within the proposed Maximum Expansion Limits (MEL) as reflected in the 1970 Master Plan (see map below), 456 of which are undeveloped.^{7/}

We estimate that only 58 acres of I-3 land remain to be developed into restricted industrial office use with perhaps another 240 acres that could become available through annexation and rezoning procedures.



MAP9

^{7/}City of Rockville, Department of Planning. Forecasts of Development in Rockville, Round II Methodology. Updated August 1984 p.14

The 240 acres involve three parcels of land. The owner of one of the three (Thomas Farm/78 ac.) is not expected to petition for annexation in the near future. A second parcel, the King Farm, is in the WSSC service area and is not expected to annex even though it's in the city's MEL. The Wheel of Fortune property (58.5 acres) is expected to pursue a development program similar to that proposed for Area 12 with or without City consent. We expect the city will exhaust its existing campus type research and office inventory (58 ac.) in the near future, with the balance of potential annexations (totaling 137 acres) occurring between now and the end of the decade.

In contrast to the limited amount of undeveloped land zoned I-3, we estimate that there are 110 acres of planned residential land available for development in the city in accordance with The 1970 Master Plan. This could yield approximately 734 additional units. Today, there are 44,000 persons living in 15,872 dwelling units.

Two hundred and sixteen acres planned residential development are expected to annex to the City by the end of this decade. This Maximum Expansion Limits acreage could amount to an additional 855 dwelling units. In all, by 1995 the City could expect 1,589 additional residential units (assuming implementation of the 1970 Master Plan land use recommendations).

Table 7 and Graph I shows past trends and future forecasts relative to new housing construction in the City (including anticipated annexations) and an additional 73 acres not planned but nevertheless zoned for residential development. 8/

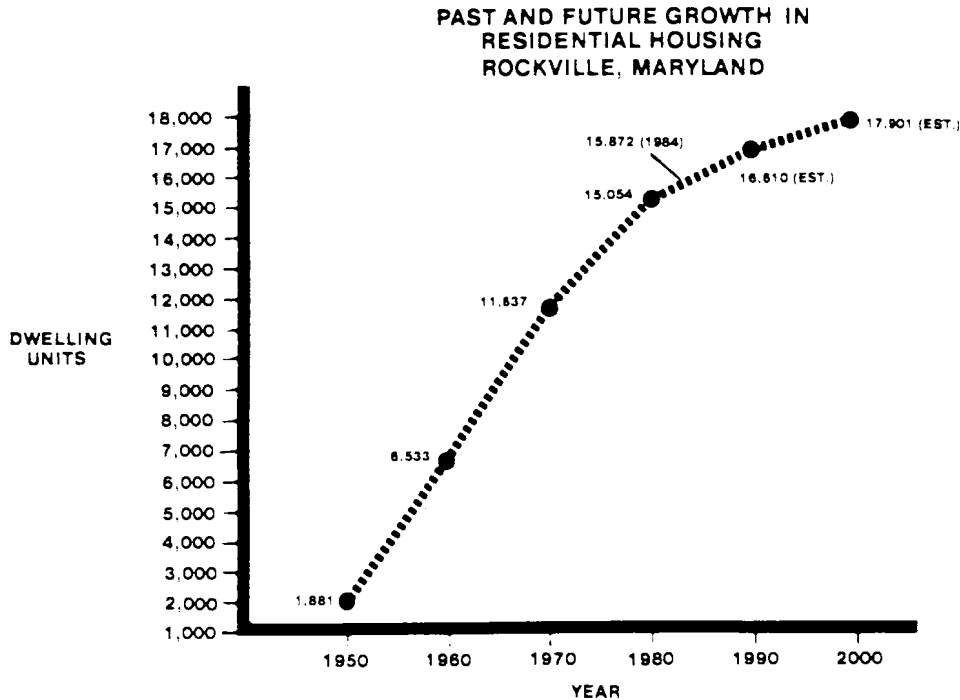
TABLE 7
Growth in Residential Housing in Rockville
for Select Years 1950 - 1995

<u>Year</u>	<u>Dwelling Units</u>	<u>Net Increase</u>	<u>Percent Change</u>	<u>Average Annual Increase in Dwellings</u>
1950	1,881			
1960	6,533	4,652	247%	465
1970	11,637	5,104	78%	510
1980	15,054	3,417	29%	342
1984	15,872	818	5%	204
1990	16,610(est)	734	5%	122
1995	17,465(est)	855	5%	171
2000	17,901(est)	436	2%	87

Source: City of Rockville, Department of Planning, Division of Licenses and Inspections. Forecasts of Development in Rockville - Round II Methodology. August, 1983.

8/Properties include: Westmont at 31.7 acres, part of Chestnut Lodge at 20.9 acres, and the 20-acre North Rockville High School site surplussed by the county.

GRAPH 1



B. Status of Office, Research and Corporate Development in Rockville

The amount of desirable land zoned and master planned for campus type research and office development in the city is nearly exhausted.

The region's research and corporate offices are drawn to one another because of similar products, the presence of the Federal government, a well educated and mobile labor force, and available land in sufficient quantity to guarantee continued growth of the industry.

NUS, GEISCO, Tektronics, Solarex, and other high growth industries have relocated outside the city because of the lack of available zoned land to accommodate expansion needs in Rockville. This industry requires continued opportunity to expand. Limited growth opportunity can affect the viability of the entire industry. The spillover effects in terms of lost industry, jobs, and revenues will affect housing and supporting commercial activity in Rockville.

C. Status of Residential Development in Rockville

A prime objective of the 1970 Master Plan was to provide quality housing to meet the needs of a resident population of 66,011 persons living in 16,883 dwelling units.

A decrease in household size coupled with an increase in household formations is the result of much larger sociological changes in residential settlement patterns throughout the metropolitan community. The residents of Rockville have benefited from this adjustment in household size. The amount of community resources in the form of parks and recreation facilities was sized originally to accommodate the 1970 Master Plan projected population (66,000) living in a prescribed number of dwelling units. Park and open space acreage was supposed to be provided at the ratio of 10 acres of parkland for every 1,000 residents. Today, because of declining household size, residents enjoy a park acreage ratio of 15.3 acres per 1,000 residents.

In a like manner, the operating budget of the city has remained stable in constant dollars since 1979 as has the number of city employees and equipment needed to provide public services. This is in spite of considerable development and economic growth in Rockville. The private employment base has doubled while the service delivery apparatus of city government has remained the same in relative terms.

The result of all this is better services at lower cost to the resident. Had household sizes kept pace with the number of housing starts, the Master Plan objective relative to population would have been achieved. Also, the city operating budget and employee levels would have been proportionately higher.

It is expected that even as more land is committed to development and new housing is constructed and occupied, the population of Rockville will virtually stop growing. If present trends and the 1970 Master Plan public policy continues, we can expect 1,600 additional housing starts and 3,000 new residents.

D. Conclusion

In terms of the residential sector, the city has achieved, if not exceeded, its quality of life objectives for its residents. Rockville has a well-balanced and diversified housing stock that is well maintained. Additional acreage devoted to residential use, over and above that recommended in the Master Plan, is not needed to sustain the quality of the housing stock of the city or to enhance the quality of life for its residents. In contrast, a sufficient land reserve to meet five years of demand for high-tech research, office and corporate headquarters is needed to sustain the industry in Rockville as a viable component of the economic base.

V. Proposed Public Improvements

Approximately 41 acres of developable land within the planning area will be set aside for streets and highways and public service facilities as described in this section.

A. Transportation

Access to the planning area is presently provided by the southern leg of Monroe Street which intersects just east of its interchange with Montrose Road. Monroe Street, a 4-lane, undivided 48-foot wide street is classified as an arterial street in the 1970 Master Plan.

Existing roads which will contribute to the final network serving the site include Montrose Road, Seven Locks Road, Falls Road, Route 355, Monroe Street and I-270. Current Average Daily Traffic counts for these roads are shown on Table 8.

Proposed transportation improvements for Planning Area 12 include both highways and public transit services. Highways can be further categorized as programmed, meaning that they are included in the state, county or city Capital Improvements Program (CIP), or planned, meaning they are proposed in the 1970 land use plan of the city or complementing county plans.

New roads are needed to provide access to and through the area and will act also as the catalyst to stimulate the development of the area. The capacity of the roadway system will define the extent of development the planning area could and should accommodate. Metrorail, the neighborhood (Ride-On) bus system or any other private transit service operations (e.g., ridesharing or vanpooling) will have an impact on the amount of additional development that could be accommodated. This section describes the programmed and planned highway improvements and proposed public transit services. It also presents an analysis of the range of development that could be accommodated given the assumed surrounding network and its constraints.

1. Programmed Highway Improvements 9/

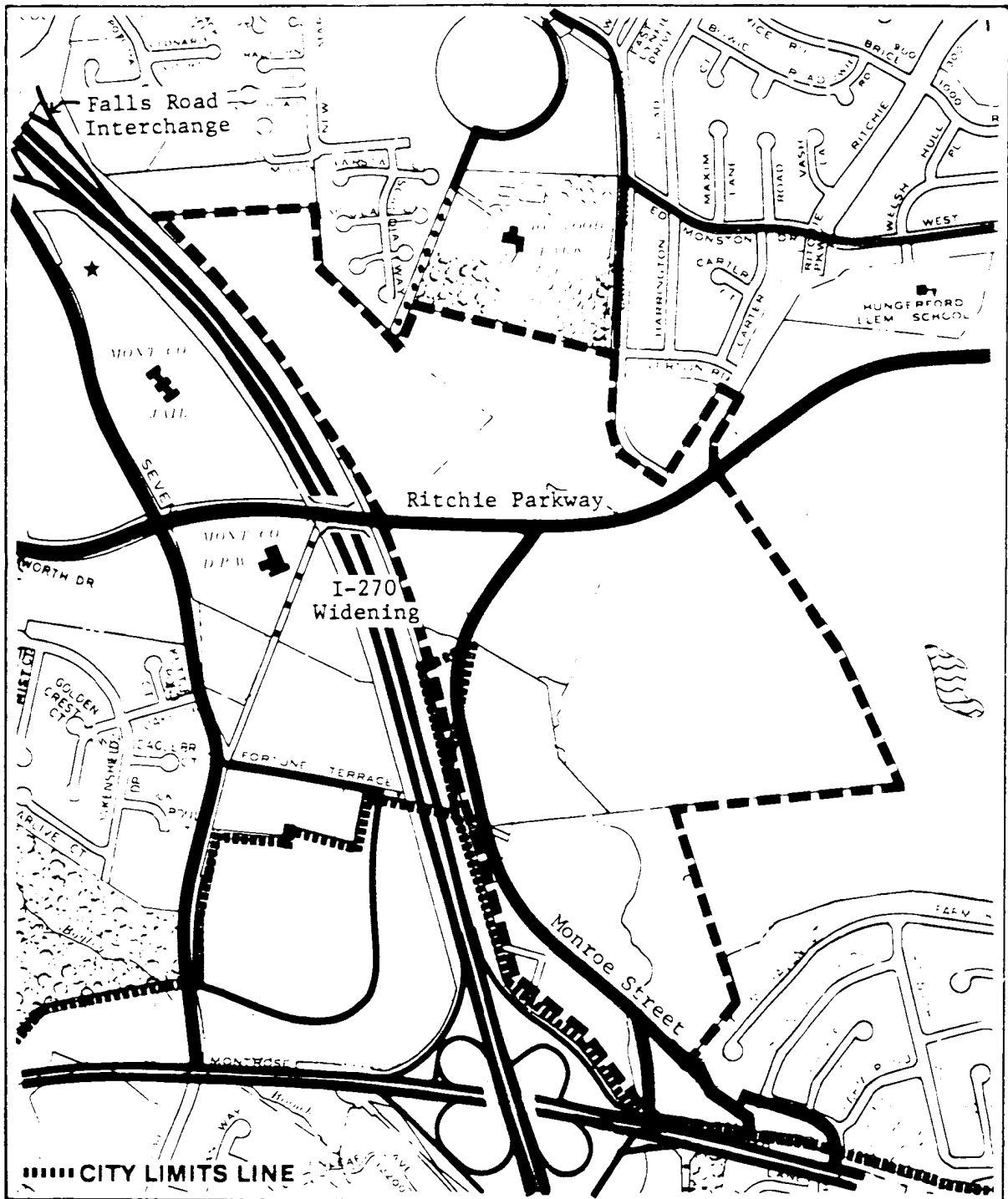
a) Ritchie Parkway including Bridge over I-270

Reference: City of Rockville CIP, County CIP, State CTP
(bridge only)

Location: Between Seven Locks Road and Maryland 355

Description: A four-lane divided arterial highway
with a 10-foot wide pedestrian/bike path





9/City of Rockville, FY1985-1990 Capital Improvements Program.



PLANNING AREA 12 **SCALE 1" : 1000'**

PROPOSED MASTER PLAN OF HIGHWAYS

NORTH ▲
MAP 10

-  **LIMITED ACCESS**
-  **MAJOR/ARTERIAL**
-  **BUSINESS DISTRICT/PRIMARY**
-  *** ALL OTHER ROADS ARE SECONDARY**

Estimated Cost: \$11,132,000

Scheduling: Design will be completed in FY86
Construction to begin in FY86 and end in
FY87

Funding: Federal, State, County, City, Developer

b) Falls Road Interchange

Reference: Maryland DOT CTP FY1984-1989

Location: See Map 12

Description: The project consists of (1) constructing an urban diamond interchange, (2) replacing the existing bridge to accommodate the proposed widening of I-270, (3) widening MD Route 189 to a four-lane divided roadway with a 30-foot wide median between Maryland Avenue and Seven Locks, and (4) realigning Falls Road to meet Potomac Valley Road and Maryland Avenue to form a cross intersection.

Estimated Cost: \$10,128,000

Scheduling: The project is in the final design stages. Right of way acquisition is scheduled for FY84 thru FY87. Construction is scheduled for FY87 thru FY89.

Funding: Federal, State

c) I-270 Widening Project

Reference: Maryland CTP FY1984-89

Location: From MD 121 to I-270 Spur (15.97 miles)

Description: I-270 will be upgraded to an 8-lane freeway with 2-lane collector distributor (C-D) roads from Montrose Road to the MD Route 124 interchange. Retaining walls will be used to eliminate right of way acquisition requirements from residential properties along the mainline of I-270. Noise barriers will be provided adjacent to all existing residential

subdivisions along I-270. Visual screens also will be provided in a number of areas where noise barriers are not required. Since the planning area is undeveloped the state will not provide noise or visual barriers along its right of way.

Estimated Cost: \$153,383,000

Scheduling: Engineering scheduled to begin in FY1985. Right of way acquisition and construction to begin in FY1987.

Funding: Federal, State

d) Montrose Interchange:

Reference: Maryland CTP FY1984-89

Location: See Map 11

Description: This interchange will become a full cloverleaf, is part of the I-270 widening. Additional modifications to provide direct access to the planning area under consideration by the State Highway Administration.

Scheduling: Same as I-270 widening

Funding: Federal, State

e) First Street Extension

Reference: City of Rockville CIP

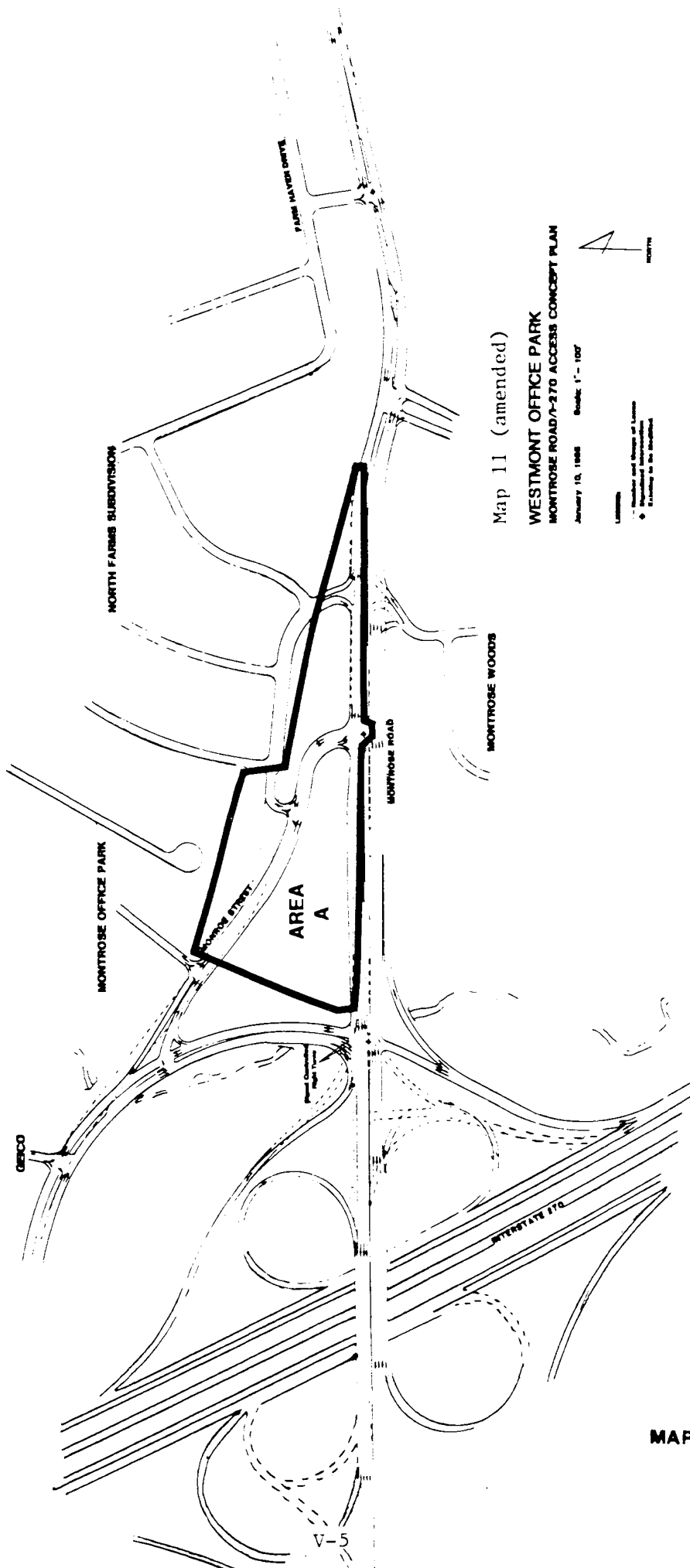
Location: Between Ritchie Parkway and Route 28

Description: A 4-lane undivided highway

Estimated Cost: \$4,033,300

Scheduling: Contract was awarded August 1984, completion estimated May 1985.

Funding: Federal, State

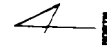


Map 11 (amended)

WESTMONT OFFICE PARK
MONTROSE ROAD/1-270 ACCESS CONCEPT PLAN

January 10, 1988 Scale: 1" = 100'

- Legend
- Boundary and Easement of Access
 - o Proposed Improvement
 - Existing to the Subdivision



f) Montrose Road (Extended)

Reference: County CIP FY 1985-1990

Location: Between Seven Locks and Falls Road

Description: A 32-foot wide rural roadway including a bike lane on each side will be built within the existing right of way for the former Rockville facility.

Estimated Cost: \$3,132,000

Scheduling: The project is in the preliminary design stage. Construction is scheduled for FY1987-FY1988.

Funding: County

2. Planned Highway Improvements 10/

a) Rockville Facility: This facility is no longer considered an element of the long-range plans of the State or County.

b) Monroe Street: This facility is no longer considered an element of the long-range plan of the city as a through arterial.

Reference: City of Rockville 1970 Master Plan

Location: (New) Ritchie Parkway north to Dogwood Park

Classification: Arterial

10/City of Rockville, 1970 Master Plan. There have been adjustments in the policy of the Mayor and Council regarding several of the planned highway improvements. The involved improvements include: the Rockville Facility, Falls Road from the City limits to Jefferson Street and Monroe Street from Ritchie Parkway north to Dogwood Park. The latest policy of the City regarding the project is reflected above.

c) Falls Road

Reference: City of Rockville 1970 Master Plan

Location: I-270 to MD Route 28

Recommendation: 2-lane undivided arterial

Falls Road

Reference: City of Rockville 1970 Master Plan

Location: I-270 to City limits

Recommendation: 2-lane undivided arterial

d) Jefferson Street

Reference: City of Rockville 1970 Master Plan

Location: Richard Montgomery Drive to New Ritchie Pky.

Recommendation: Business District Road

3. Programmed Public Transit Services

a) Metrorail

Twinbrook and Rockville Stations

Location: Planning Area 12 lies to the west of the proposed Metrorail station approximately 2 miles from each station.

Scheduling: The Twinbrook and Rockville Stations opened in December 1984.

b) Ride-On Bus Service

Reference: County CIP

Location: Feeder routes to the Metrorail stations

Description: Two routes, serving neighborhoods adjacent to Planning Area 12, were opened in May 1984. None of the proposed routes serve Area 12 as there is no development. However, County staff have indicated that if there were enough develop-

ment, a way would be found to provide service. The proposed routes are scheduled to begin operations in January 1985 following the opening of Metrorail.

3. Traffic Impact Analysis -- Methodology, Assumptions, and Conclusions

The traffic analysis year is 1995. This year was selected in order to provide meaningful comparison with the traffic analysis prepared by Barton/Aschman Associates 11/ (B/A) for the planning area. The background traffic is based on five data sources:

1. Existing Traffic Counts (1982-83).
2. TRIMS Model run for year 2000.12/
3. SHA projections for Ritchie Parkway, years 1990 and 2010.
4. Barton-Aschman background for 1995.
5. Montgomery County Department of Transportation

Based on these five sources, background projects of average daily traffic counts (ADT) for the year 1995 were developed as shown in Table 3. Background traffic was converted to peak hour volumes using design hour factors of:

	<u>Rockville Pike</u>	<u>All Other Roads</u>
AM	0.07	0.08
PM	0.08	0.09

Directional splits and turning movements were determined using a combination of the SHA analysis for Ritchie Parkway, Barton-Aschman forecasts, and existing turning movement counts. All factors have been adjusted slightly to make inbound traffic equal to outbound traffic at selected intersections.

11/Barton/Aschman Associates "Traffic Analysis of the Westmont Development Proposal" prepared for the Westmont Development Associates and Tower Dawson Limited Partnership, etc. This analysis served as the starting point for the city's evaluation of development opportunities and constraints, etc.

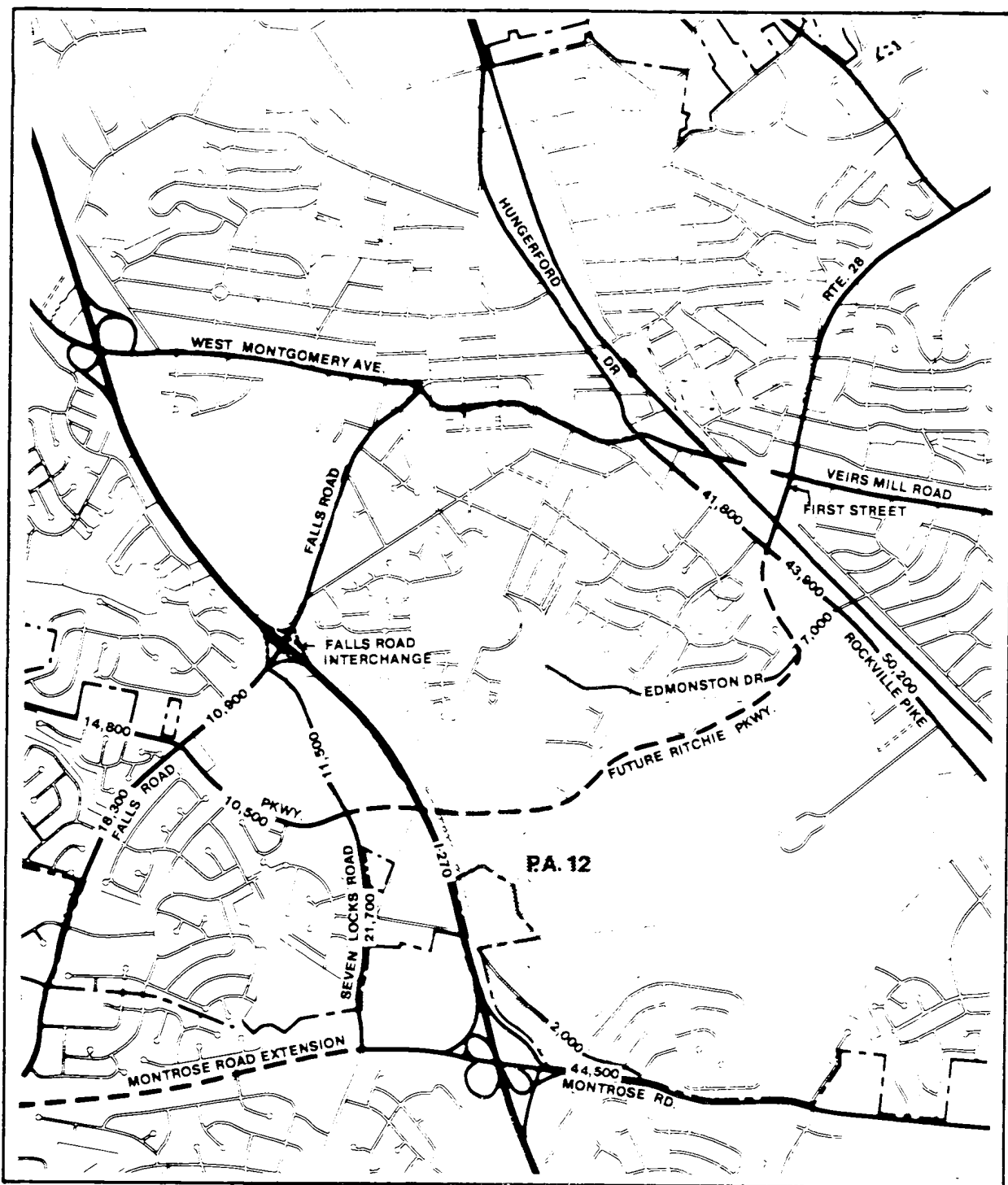
12/TRIMS is a computer based regional traffic simulation model developed by the Metropolitan Council of Governments.

TABLE 8 *
TRAFFIC FORECAST COMPARISONS FOR SELECT ROADWAYS
PLANNING AREA 12

		(Assuming No Development)		TRIMS (2000)	1995 B/A	City 1995
		1982-83	SHA 1990			
Rte. 355	S. of Edmonston	50,200	55,500	64,100	N.A.	60,600
Rte. 355	Edmonston to Ritchie/First	43,900	51,000(53,000)	53,900	N.A.	55,000(56,900)
Rte. 355	N. of Ritchie/First	41,800	46,000	51,000	N.A.	48,800
First Street	E. of Rte 355	-----	12,500(13,500)	20,000	N.A.	16,000(17,000)
Ritchie Pkwy.	355 to Edmonston	-----	10,000(13,000)	14,400	N.A.	10,000(14,000)
Ritchie Pkwy.	Edmonston to Monroe	-----	15,000	21,300	14,700	16,000
Ritchie Pkwy.	Monroe to Seven Locks	-----	15,000	15,400	15,600	15,600
W. Ritchie Pkwy.	Seven Locks to Falls	10,400	17,000	15,900	18,800	18,600
W. Ritchie Pkwy.	W. of Falls	14,800	18,000	12,200	N.A.	20,000
Edmonston Dr.	355 to Ritchie	7,000	8,000(4,000)	11,800	N.A.	9,000(5,000)
Seven Locks	S. of Ritchie	21,700	17,000	10,500	7,800	13,900
Seven Locks	N. of Ritchie	11,500	3,000	N.A.	1,200	1,200
Falls Rd.	S. of Ritchie	18,300	22,000	19,600	N.A.	21,700
Falls Rd.	N. of Ritchie	10,900	20,000	25,100	N.A.	23,900
Monroe Street	Ritchie to Monroe	2,200	5,000	18,300	2,700	5,700
Montrose Road	Between I-270 & Monroe Street	44,500	40,000	40,900	35,000	42,500

*Average Daily Traffic

NOTE: All figures reflect Ritchie Parkway Alternate 1, except Option 2W figures in parentheses.



PLANNING AREA 12

SCALE 1":2000'

NORTH ▲

1984 TRAFFIC COUNTS
(average daily weekday traffic)

MAP 12

1. 1995 Planned Street System

The 1995 planned street system assumes Ritchie Parkway between Falls Road and MD Route 355, the Falls Road interchange, First Street extended and the cul-de-sac of Seven Locks Road at Falls Road in order to accommodate the construction of the interchange.

Five Rockville intersections were considered in this analysis to be critical to the ability of the street system to move traffic to and from the planning area. These were (tables 11 & 12):

- a) Falls Road (MD 189) and W. Ritchie Parkway
- b) W. Ritchie Parkway and Seven Locks Road
- c) Rockville Pike (MD 355) and Edmonston Drive
- d) Rockville Pike (MD 355) and Ritchie Parkway/First Street
- e) Montrose Road/Monroe Street

Intersections not considered critical (capable of reaching Levels of Service E) in this analysis included Ritchie Parkway at Monroe Street, Ritchie Parkway at Edmonston Drive and Seven Locks and Montrose Roads. The latter is scheduled for major improvements by Montgomery County and should adequately handle projected traffic volumes.

Since this analysis is intersection sensitive, it is important to discuss assumed future intersection improvements. All improvements are considered feasible and realistic given presently known conditions. Many have not been programmed by local government and include:

- a) Falls Road (MD 189) and W. Ritchie Parkway: Intersection improvements proposed by the SHA as part of the Falls Road interchange plus a double left turn from southbound Falls Road to eastbound Ritchie Parkway.
- b) W. Ritchie Parkway and Seven Locks Road: Intersection improvements proposed as part of the Ritchie Parkway project, including a double left turn from eastbound Ritchie to southbound Seven Locks. Also assumed is a free flow right turn lane of adequate length from northbound Seven Locks to eastbound Ritchie.

- c) Rockville Pike (MD 355) and Edmonston Drive: The configuration assumed is today's basic intersection, with Ritchie Parkway Option 1 modifications. ^{13/} The "basic" intersection does assume that the northbound left turn bay of Rockville Pike has been lengthened (it is presently too short) and that the temporary left turn phase for the westbound approach of Edmonston has been eliminated.
- d) Rockville Pike (MD 355) Ritchie Parkway/First Street: The configuration assumed is that proposed by the SHA for Ritchie Parkway, including a four-lane eastbound approach of Ritchie. Also assumed are the addition of free flow right turn lanes on both northbound and southbound Rockville Pike. The latter turn lane has tentatively been included in the proposal for Ritchie Parkway.
- e) Montrose Road and Monroe Street: Add third westbound through lane on Montrose Road from east of Monroe Street to I-270. Add third approach lane from Monroe Street to accommodate double left turns.

It should also be noted that improvement will be necessary at Montrose Road and Seven Locks Road. Future intersection configuration will be defined by Montgomery County Department of Transportation including extension of Montrose Road to Falls Road.

2. Traffic Generation

There has been considerable controversy among planning and transportation professionals in the last few years over traffic generation figures for office land uses. Barton/Aschman estimates are based on peak hour generation samples taken from several office buildings in the metropolitan Washington area. The validity of the samples, considering items such as building occupancy and availability of off-site parking, has not been verified. Furthermore, the generation figures differ markedly from those developed by the Institute of Transportation Engineers (ITE), which are drawn from surveys across the nation. The following table compares office use generation factors between Barton/Aschman and ITE.

^{13/}Refer to the Ritchie Parkway Environmental Assessment conducted by the State Highway Administration for the City of Rockville dated September 1984.

Table 9

Comparison Between Barton/Aschman Office Use Trip Generation
ITE Standards*

	AM IN	AM OUT	AM TOTAL	PM IN	PM OUT	PM TOTAL
1. ITE "General Office"	1.86	0.35	--	0.27	1.36	--
2. ITE "General Office"						
factored	1.95	0.37	2.32	0.36	1.84	2.20
3. ITE "Office Park"	1.98	0.26	--	0.33	1.84	--
4. ITE "Office Park"						
factored	2.32	0.31	2.63	0.36	2.02	2.38
5. Barton/Aschman Office	1.28	0.17	1.95	0.25	1.08	1.33

Source: Institute of Transportation Engineers, Trip Generation, 1983; and
Barton/Aschman Associates. op.cit.

*Figures are midpoints of ranges.

Depending on the ITE figures chosen, which are the accepted norm for Rockville, 3/A trip generation estimates are 30% to 40% lower than conventional ITE rates. Considering the ranges that traffic generation rates can span, acceptance of the lower end figures would be too liberal in the opinion of the Commission. This analysis of traffic capacity assumes the adopted ITE "Office Park" figures (#3 above) as those most appropriate for the situation under consideration. This is in spite of the fact that the County Planning Board staff did accept the lower 3/A rates for one development in the Shady Grove West Study Area and in the process established precedent that may be used in the future by the county. Since residential land uses are considered as potentially acceptable uses in the planning area, generation figures for this land use must also be taken into account.

3. Traffic Distribution And Assignment

The following distribution table, prepared by Barton/Aschman Associates for the Westmont Development Plan, has been modified by additional information from Montgomery County DOT.

Table 10

Traffic Distribution

Thru Cordon Points Around Planning Area

	Montrose to East	Ritchie to East	Ritchie to West (incl. I-270 north)	I-270 South/ Seven Locks
B/A	10%	30%	33%	27%
MCDOT	12%	22%	38%	28%

Source: Barton/Aschman Associates. Op.City and MCDOT.

In addition to the above, traffic must be assigned to particular roadway links and intersection turning movements. Of particular importance is the assignment of the 30% of site traffic moving along Ritchie Parkway to and from Rockville Pike (MD Route 355). The exact assignment depends on the preferred traffic service option selected for Ritchie Park. Map 10 shows this subdistribution in greater detail. It should be noted that, like traffic generation, variability in traffic distribution can lead to considerable variation in traffic constrained land use capacity.

3. Modal Split

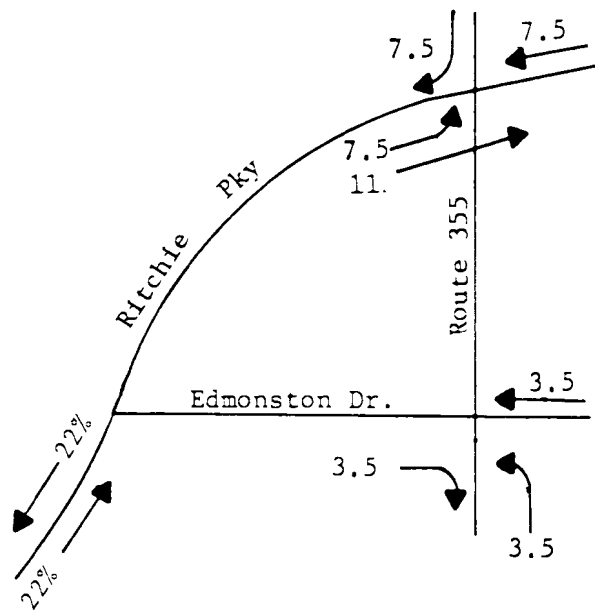
The County has provided information indicating that with Metrorail availability and transit feeder service to the Planning Area, a 10% modal split is justified. However, the City is not certain that the 10% modal split can be achieved without complementing ridesharing, vanpooling and parking incentive programs.

4. Intersection Methodology and Analysis

Each of the above five intersections have been analysed for the peak hours using the assumed 1995 background traffic and roadway network. Using critical lane analysis techniques in determining volumes and capacities, each intersection yields a "residual" capacity that would be available for potential new development. "Capacity" in this case means 90% of true capacity of an intersection or the lower edge of "Level of Service E." At this level, traffic flow is unstable with considerable congestion but is not yet at a "jam" stage (characterized by Level of Service "F," where V/C is 1.00 or greater). Levels of Service "E" and "F" are not acceptable traffic flow conditions.

ROUTE 355 - Ritchie - Edmonston

Distribution of Planning Area 12
Developmental Traffic



Ritchie Parkway

For critical lane analysis, the City uses a compilation of factors and penalties derived from several sources, particularly Transportation Research Circular 215.

The five intersections analyzed yielded the following critical lane traffic volumes given projected 1995 background traffic volumes.

Table 11

Residual Critical Lane Capacity At Selected Intersections

	<u>Condition</u>	<u>AM Peak Residual</u>		<u>PM Peak Residual</u>	
Falls/Ritchie	SHA Design with SB Double LT	738	612	635	715
Ritchie/Seven Locks	SHA Design with Add NB FF RT	597	753	361	939
Rt.355/Ritchie	Option Modified	1154	236	1153	247
Rt.355/Edmonston	Option Modified	1188	252	1160	280
Montrose/Monroe	Existing with approach lanes	640	800	1025	415

NOTE: V/C = volume to capacity ratio.

Peak Period is defined as: That hour of the day (A.M. or P.M.) when the greatest concentration of traffic occurs.

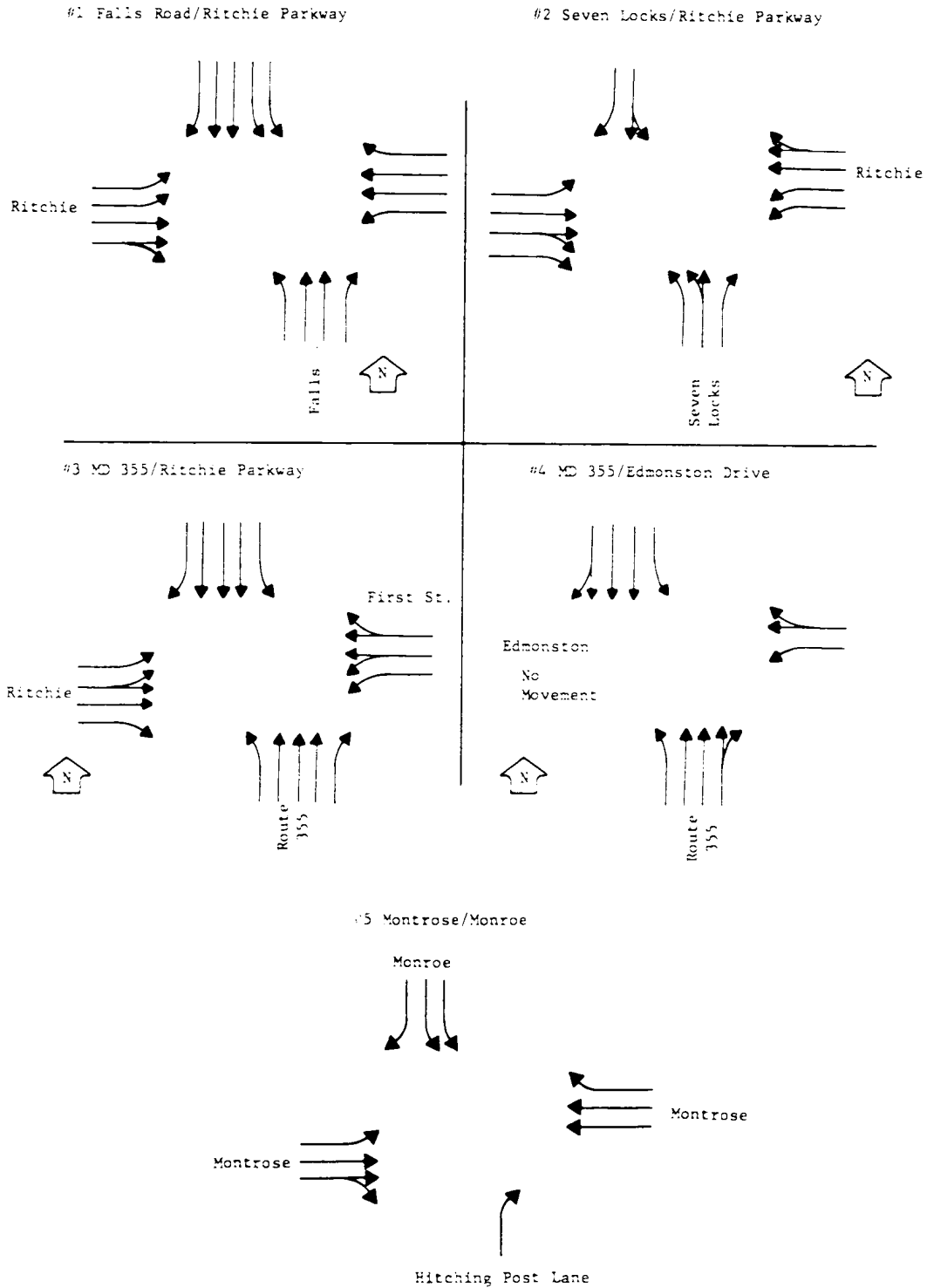
Source: City of Rockville, Department of Public Works.

5. Land Use Implications

The residual traffic capacity available at each intersection (Table 11) projected to the year 1995 can be equated to land use development in the same time frame using traffic generation and distribution factors, along with the factors described in the critical lane analysis. Each of the five intersections indicate land use and development yields for which the intersection reaches Level of Service "E" (90% of capacity). Each intersection is assumed to be in its "best possible" configuration as shown on Graph 2. The resulting critical lane intersection analysis yields capacity constraints, listed in Table 12, in square feet of commercial development or dwelling units.

GRAPH 2

SELECTED "BEST" POSSIBLE INTERSECTION CONFIGURATION



Source: Department of Public Works, City of Rockville.

TABLE 12*

Traffic Restrained Limit At Select Intersections
(000s of square feet)

<u>Intersection</u>	<u>Office Area Limit</u>		<u>Office Area Limit With Ramp Connection to Montrose Interchange</u>	
	<u>AM</u>	<u>PM</u>	<u>AM</u>	<u>PM</u>
Falls/Ritchie	1,589	1,946	1,860**	>2,100
Seven Locks/Ritchie	1,618	1,801	>2,100	>2,100
355/Ritchie 1-Modified	3,034	2,070	>3,034	2,070
355/Edmonston 1-Modified	1,904***	>3,000	1,904	>3,000
Montrose/Monroe	2,405	2,401	>2,405	>2,405

*Assumes ITE rates, 10% modal split, MCDOT traffic distribution and Table 13 unprogramed improvements #1 - 6.

**2,073,000 can be accommodated if the direct access ramp includes an eastbound left turn lane from Montrose Road.

***Because of the small amount of traffic from P.A.12, this intersection is eliminated from further consideration.

6. Conclusions

Table 12 shows that without a direct ramp connection to the Montrose Interchange from Monroe Street, office development should be limited to approximately 1.6 million square feet based on criticality of the Falls Road/Ritchie Parkway intersection in the AM peak period. Seven Locks/Ritchie Parkway is also very close to this value during the AM peak period.

With the direct ramp connection as shown on Map 11, approximately 2.1 million square feet of development can be accommodated in the planning area. Map 11 illustrates this ramp design along with two other unprogrammed improvements proposed in this vicinity (see Table 13).

Table 12 represents a single snapshot in time. As new projects, opportunities or restraints are identified, the traffic limits shown on Table 12 are subject to change. For example, if Jefferson Street is extended across the frontage of the Woodmont Country Club property, turning movements at several intersections could change thereby affecting the amount of development that could be accommodated.

Traffic capacity analysis is an iterative process that uses the best available data. Table 12 must be viewed as a guide based on current best thinking. It should not be used in the future as a final statement of what can or could be accommodated in the planning area. It should certainly not be used in the future to artificially limit development when future conditions may not warrant or justify strict adherence to this information.

Within the range of error of estimate* and subject to land use considerations, the staging program and highway projects presented in this plan, total development in the planning area could reach approximately 2.2 million square feet. Conditions under which development can occur in excess of 1.6 million square feet are clearly stated in Table 15 of the staging plan and must be met as a condition of site plan (use permit) or concept plan approval.

*Error of estimate reflects rounding of figures in successive calculations. This has been estimated to be approximately 6%.

TABLE 13

SUMMARY OF UNPROGRAMMED (1984) OFFSITE ROADWAY IMPROVEMENTS ---- PLANNING AREA 12

		Approx. Cost (\$000s)	Responsible Agencies
1)	Ritchie Parkway widened to four lanes - Seven Locks to Falls	600	City
2)	Falls at Ritchie: southbound double left turn from Falls Rd.	50	City
3)	Seven Locks at Ritchie:		
	a. Widening for double left turn, westbound Ritchie	100	City
	b. Right turn lane (approx. 500'), northbound Seven Locks	80	
	c. Right turn lane (approx. 500'), eastbound Ritchie	100	
4)	Rockville Pike at First Street: Right turn lane (approx. 500'), northbound Rockville Pike	80	City/State
5)	Montrose Road: Widening for additional westbound thru lane from east of Monroe Street to I-270 interchange	200	County
6)	Montrose at Monroe: Widening of Monroe approach to accommodate double left turn	80	City
7)	Modification of Montrose interchange, connector roadway to Monroe Street and traffic signal	1,500	State
8)	Monroe Street bypass of North Farm	300 ^A .	City/State
Total of "necessary" improvements		\$ 3,090	

NOTE:

A. Desirable project, not strictly necessary for traffic capacity

The objectives of this additional project are:

- To divert traffic from other intersections by making access from the Montrose interchange more direct and convenient. This would result in more available capacity at other intersections and thereby allow higher development levels.
- To reduce adverse effects to residential frontages on Monroe Street in the North Farm neighborhood.
- To make the Westmont development more attractive and marketable by creating "direct access" to the site from I-270.
- To provide a direct arterial link between the Montrose Road interchange and Ritchie Parkway, thereby strengthening the City's street system.

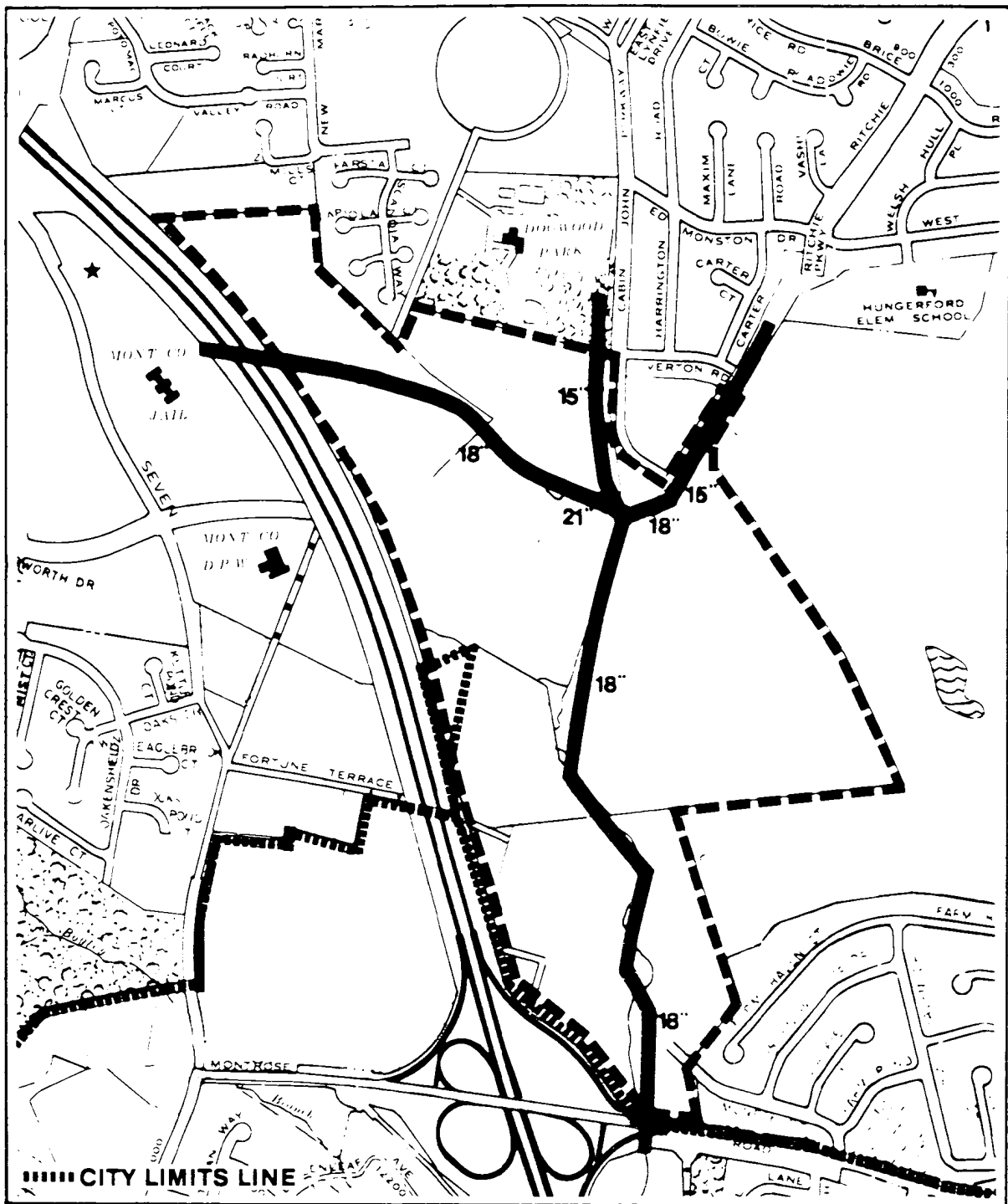
Depending on the availability of a left turn storage lane on eastbound Montrose Road, the direct access ramp project lifts the traffic-constraints on PA 12 office development to as high as 2.1 million square feet (as restrained by the Route 355/Ritchie Parkway intersection).

C. Sanitary Sewer System

The area is traversed by an existing 18" diameter sewer outfall from the northerly limits of the tract at I-270, across Monroe Street and Cabin John Parkway (extended), south to the limits of the planning area (Map 13).

A relief sanitary sewer outfall main is planned for extension through the planning area from Cabin John Parkway south to Montrose Road. Because it is necessary to reroute the existing 18" main around the proposed South Rockville multi-purpose lake, the alignment and construction scheduling is dependent on the plans and scheduling for the lake project. Both projects are currently scheduled for construction during Fiscal Years 1988 and 1989.

Additional main line sanitary sewer extensions will be required to serve specific development areas. Such facilities will be the responsibility of the developer and will be provided under the subdivision bonding/permitting procedures of the city.



PLANNING AREA 12

SCALE 1" : 1000'

NORTH ▲

EXISTING SANITARY SEWER SYSTEM

MAP13

SEWER LINES

The sanitary sewerage system with the relief outfall will accommodate the projected development levels recommended in this plan.

D. Water Service - Fire Flow Capability

There is an existing 16" water main leading from New Mark Commons to this area via short section of 24" water main. The 24" main is connected to an existing 12" water main which traverses the planning area parallel to I-270 and currently serves the GEICO/North Farm area. This main will serve the planning area. Of course, additional main line extensions will be required to serve specific development areas. Such facilities will be the responsibility of the developer and will be provided under the subdivision bonding/permitting procedures of the city (Map 14).

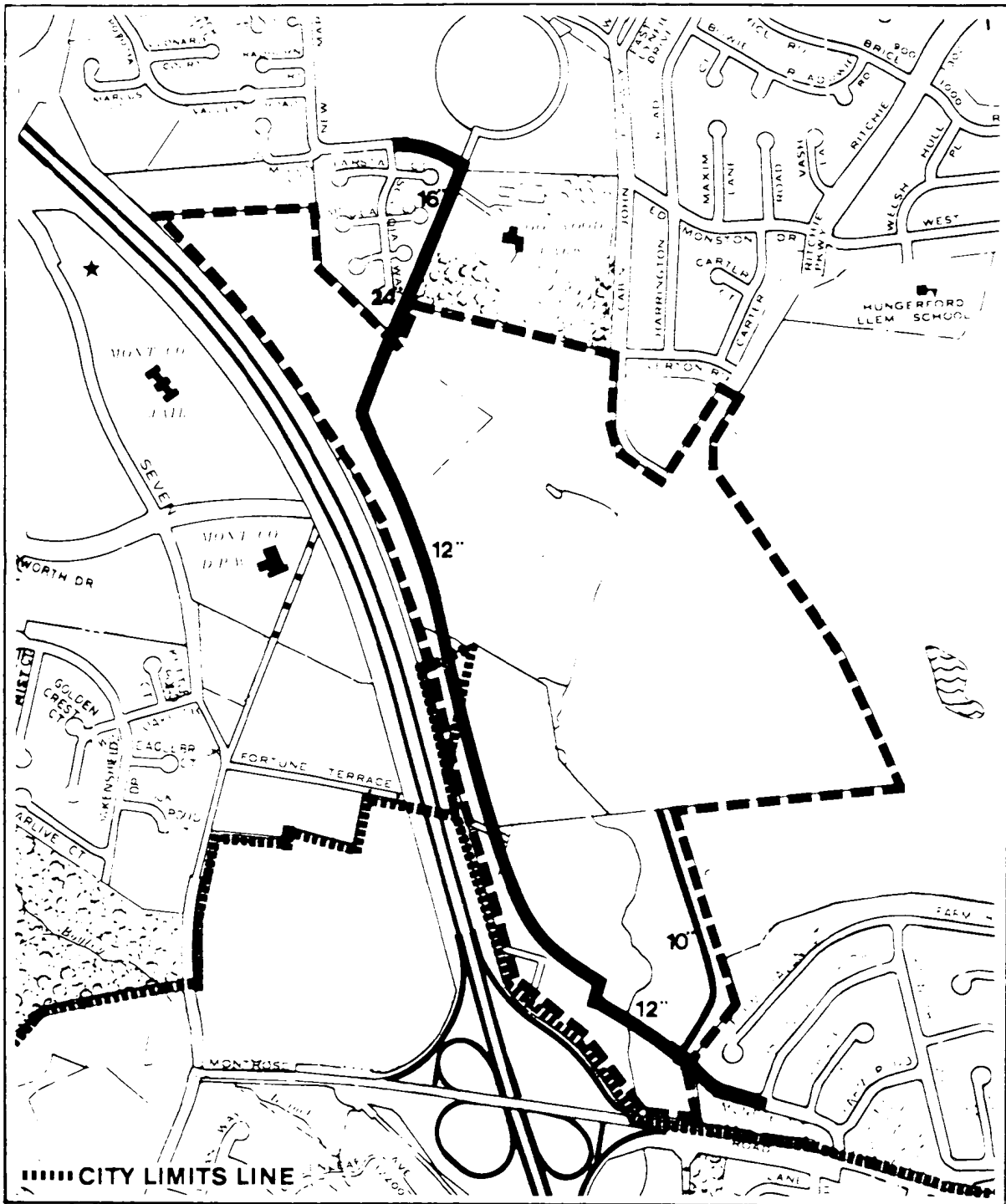
A 24" transmission main has been programmed which will extend from the terminus of the existing 24" main at Seven Locks Road and Ritchie Parkway to Rockville Pike via proposed Ritchie Parkway. The main will be suspended from the Ritchie Parkway bridge crossing over I-270 and, therefore, must be coordinated with the roadway project construction schedule. This main will provide a direct connection from our Potomac River water filtration plant as well as the city's 8 million gallon water storage facility located on Glen Mill Road. In addition, a 16" water main will be extended in conjunction with First Street roadway construction between Veirs Mill Road and Rockville Pike to connect to the above 24" main. This will provide a direct link between the Grandin Avenue water tank and the planning area. All of these mains are expected to be in operation by Fiscal Year 1987. With these projects on-line, the distribution system will be adequate to accommodate the maximum use as defined in the development.

E. Water Production

The city's water treatment plant presently produces an annual average daily volume of approximately 5.5 million gallons with peaks of approximately 7.5 million gallons per day. The projected volume of the highest development scenario water user (mixed use) will require a daily average of 0.34 million gallons. The current nominal capacity of the city's water treatment plant is 8 million gallons per day with the potential for meeting peak daily demands of short duration of approximately 25% above this figure. In addition, the city has water main interconnections with the WSSC for use during emergency conditions.

F. Stormwater Management

The main stem of the Cabin John stream traverses this site (Map 15). The city has proposed the construction of a multi-use lake which will be superimposed upon the stream area from the southern terminus of the planning area to the area just south of Ritchie Parkway. The lake site will require approximately 31 acres to accommodate the stormwater management features, of which approximately 13 acres will be in water surface and the balance in flood plain impoundment and emergency spillways. Current scheduling in the city's Capital Improvements Program calls for construction in Fiscal Year 1989.



PLANNING AREA 12
EXISTING WATER SYSTEM

SCALE 1" : 1000'

NORTH ▲
MAP 14

■■■■ CITY LIMITS LINE
 ■■■ WATER LINES

There is a site just above Monroe Street in Planning Area 12 which can accommodate a small regional SWM facility. A requirement for construction of this pond will be considered if a high percentage of impervious development is planned for the area lying upstream of this site. The multi-purpose lake is expected to compensate for all development south of Ritchie Parkway. Where soil conditions are satisfactory and it is feasible to do so, we will encourage the use of infiltration practices.

SWM facilities will be provided by the developer to accommodate the selected scenario under the normal development requirements of the city and no unusual problems are expected.

G. Storm Drainage

The planning area is traversed by the Cabin John stream from the southern limits of the property upstream to Ritchie Parkway where the stream forks into two main branches. It is assumed the stream valley area will remain in its natural state except as modified by the lake and Ritchie Parkway construction. Storm drain piping systems to serve specific development areas will be required and installed by the developer under the city's normal subdivision bonding/permitting requirements.

VI. PROPOSED LAND USE PLAN

It is proposed that future development in Planning Area 12, both north and south of new Ritchie Parkway, be devoted primarily to research and office development in a campus-like setting with a residential component. The office park use would apply to approximately 147 acres of undeveloped land in Planning Area 12 (see table 14). The residential component would be approximately 19 acres situated north of future Ritchie Parkway.

It is envisioned that this plan would provide sufficient opportunity to attract prestigious corporate and regional offices, and laboratories for the emerging high technology industries as well as housing opportunities.

The plan also incorporates other features of the adopted Master Plan for Rockville including preservation of open space in the Cabin John stream valley, provision for the south Rockville stormwater management/recreation lake, the extension of Ritchie Parkway, and the south leg of Monroe Street from Montrose Road to Ritchie Parkway.

This plan would maintain the existing industrial park uses in the south end of the Planning Area as they exist today. It also provides for approximately 75 acres of green space including public parkland and private conservation space (with easements for public access and use of appropriate areas) and approximately 23 acres for street and highway rights-of-way. A minimum office building setback from residential land uses outside area 12 of 220 (100 feet for parking structures) feet, which includes a 65-foot landscaped buffer (approximately 7 acres) of private green space, is planned between office uses and adjoining residential communities.

In order to provide substantial green space areas and to enable the retention of large buffers, it is proposed that maximum building heights range from 10 to 12 stories depending on details of the concept plan with maximum height set by zoning at 125 feet. A substantial portion (about 50%) of the required off-street parking will be contained in parking structures subject to topographic limitations. Building heights would be scaled down to nearest adjacent residential areas in accordance with zoning standards.

The gently rolling terrain presents opportunity for inventiveness in site plan design and building heights that could blend into the natural environment.

Building heights should be encouraged to vary from building to building in order to create diversity in building siting by taking advantage of the topography. The objective is to preserve an open, campus-like setting in a suburban residential environment.

A more detailed land use proposal is presented later in this section. Map 16 illustrates this plan.

There exists (1984) approximately 311,000 square feet of restricted industrial development located in the south end of the planning area.

Additional development may occur on approximately 8 acres of undeveloped property identified as area 'F' on Map 17. Much of this acreage, however, will be taken for right-of-way purposes to accommodate the direct access ramp to the Montrose Road/I-270 interchange. The development potential for this area could range between 75,000 and 125,000 square feet. This is in addition to the 2.1 million square feet of high-tech office and corporate headquarter space allocated to the proposed office park project (areas A-D of Map 17).

Within the range of error of estimate* and subject to land use considerations, the staging program and highway projects presented in this plan, total development in the planning area could reach approximately 2.2 million square feet. Conditions under which development can occur in excess of 1.6 million square feet are clearly stated in Table 15 of the staging plan and must be met as a condition of site plan (use permit) or concept plan approval.

Table 14

Proposed Land Uses
Planning Area 12

<u>Land Use</u>	<u>Approx. Acres</u>	<u>Percent of Total</u>
Restricted Industrial	30	13%
Office Park	147*	62%
Public Open Space	5	2%
Public Rights-of-way	23	10%
South Rockville Lake	13	5%
Residential	<u>19</u>	<u>8%</u>
Totals	237	100%

*Includes approximately 35 acres of flood plain.

A. GOALS, OBJECTIVES, DEVELOPMENT POLICIES AND STANDARDS

1. Goal

It is the goal of this plan to develop and maintain a stable economic community in Rockville.

The goal of this plan is consistent with the overall goal of the city which is to help make Rockville the best possible residential community. The best possible residential community would offer jobs as well as residences. It would

*Error of estimate reflects rounding of figures and successive calculations. This has been estimated to be approximately 6%.

offer an attractive and prestigious image. It would attract new residents and maintain a positive growth rate commensurate with the ability of the community to provide complementing public services. This option proposes to offer quality commercial development that will directly benefit the economic base of the city, provide for greater employment opportunity, attract clean and quiet high quality industry, and enhance the overall corporate presence in Rockville. In this sense, the goal for Rockville and the goal for Planning Area 12 are the same.

2. Objective

- a) It is the objective of this plan to encourage research, office and corporate development to continue to grow and prosper in Rockville.
- b) To conserve natural features and achieve efficient use of land and resources.
- c) To preserve and protect established residential neighborhoods from intrusion of unwarranted traffic and blighting influences of incompatible uses.

This plan emphasizes the comprehensive and coordinated development of large parcels of land in order to stimulate an integrated office park development in an open, campus-like setting.

3. Development Policies

It is the policy of this plan to:

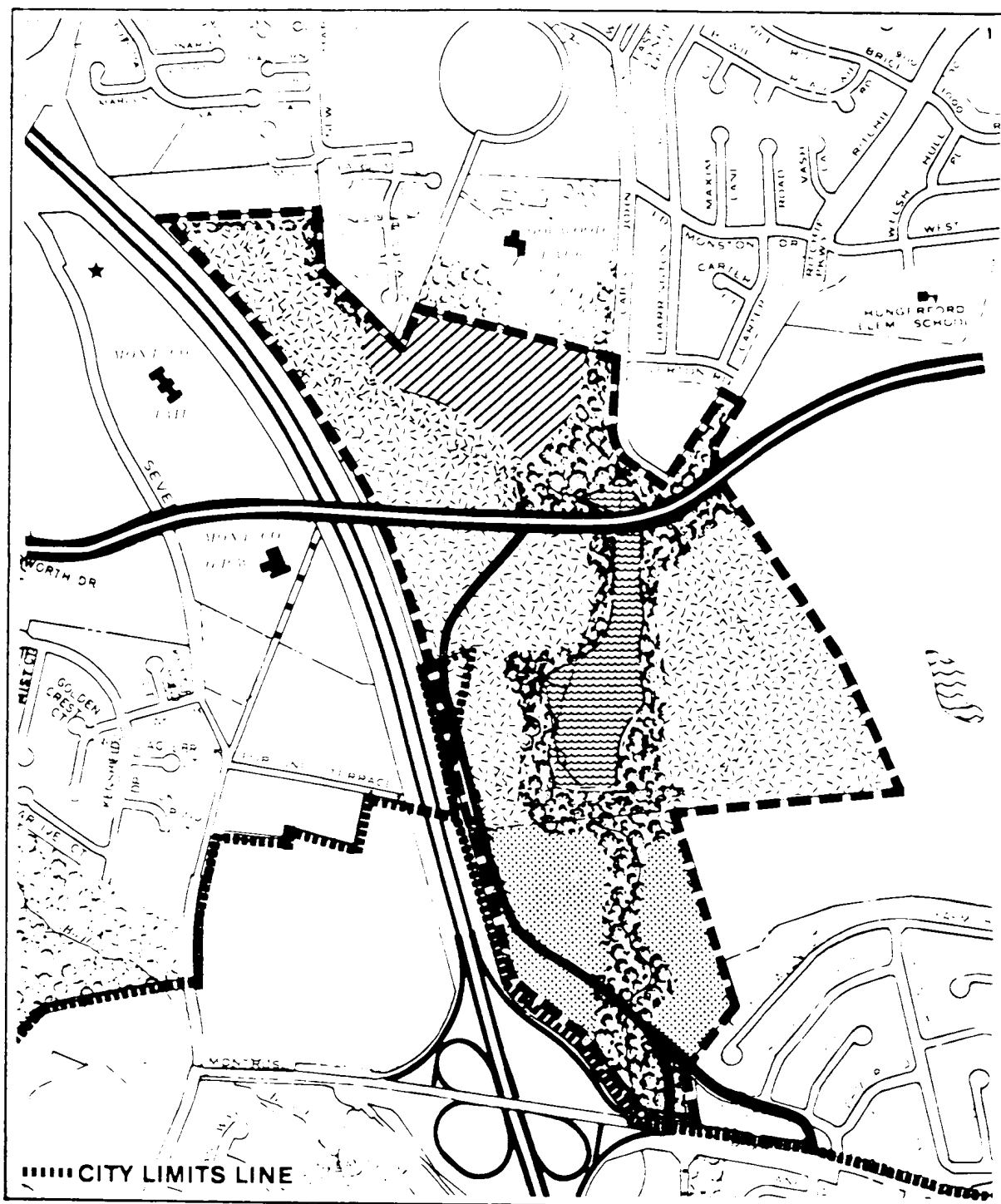
- a) Provide for the reasonable expansion of corporate research and office development in those areas of the City most adaptable to such activities.
- b) Encourage such development where there is opportunity for direct access to the interstate highway system (I-270).
- c) Encourage high quality comprehensive design for all new construction that does not detract from surrounding residential neighborhoods.
- d) To strengthen neighborly ties and compatibility between adjacent residential property and office park development by providing adequate setbacks, building height ratios, and buffers.
- e) Match public facilities capacity to the orderly staging of development.

- f) Establish development staging minimum objectives.
- g) Require that approximately 5 acres of land (not within the flood plain) should be set aside for public parkland. Approximately half the land (including the 5 acres public parkland and areas within the flood plain) should be retained as part of a planned development approval process.
- h) Provide residential uses in areas most proximate to existing residential neighborhoods.
- i) provide compatability between existing and proposed residential properties and effective separation of non-similar land uses.
- j) Provide buffering of residential uses from adjacent major roadways.
- k) Encourage preservation of existing natural features within private development areas.
- l) Mitigate the visual and noise impacts of the proposed Ritchie Parkway on neighboring areas with berms and substantial landscaping.

4. Development Standards

In the context of a comprehensive plan, buffering and other land use screening techniques around the perimeter of the planning area are needed to protect neighborhoods from the negative effects of development. Therefore, this plan proposes to incorporate additional buffering standards in the City Zoning Ordinance to provide greater protection for residential development than is currently required.

This plan recommends amendment to the Zoning and Planning Ordinance to provide additional transition from one environmental area to another through the use of extensive setbacks and buffers between residential and nonresidential areas.



PLANNING AREA 12

SCALE 1" : 1000'

NORTH ▲

LAND USE PLAN

MAP 16

-  OFFICE PARK DEVELOPMENT
 PARK, RECREATION AND OPEN SPACE (PUBLIC & PRIVATE)
 LAKE
 RESTRICTED INDUSTRIAL
 RESIDENTIAL
- VI-5

a) Building Setback Distances

(1) All commercial/industrial building(s) are to be setback from abutting residential property outside the planning area, a minimum distance of 220 feet at the closest point. Where a public street separates the commercial/industrial building(s), the front/side building restriction line shall be setback from the public right-of-way line a minimum of 50 feet at the closest point and 100 feet from an interstate-class highway.

(2) Parking Lot(s) and Structures

No parking lot shall be permitted closer than 65 feet at the closest point from the property line where residential land abuts. A continuous green edge with landscaping shall be maintained around the perimeter of the property in accordance with the following standards:

- Residential Land Abutting

Depth of green edge.....65 feet

- Nonresidential Land Abutting

Depth of green edge.....10 feet

- Street Abutting

Depth of green edge.....25 feet

Parking structures must be set back a minimum of 100 feet from abutting residential land and 25 feet from local rights-of-way. Where abutting nonresidential land, no setback is required.

b) Visual Green Edge

The intent of this plan is to provide for adequate screening to protect adjoining development, to the extent reasonably possible, from adverse visual intrusion.

c) Design Standards

The Planning Commission shall examine during site plan review the architectural compatibility of each building in the context of the overall concept plan approved for the area; the objectives of the office park development; and, adjacent residential community.

d) Other

The physical structure that house commercial/industrial activities should serve as a buffer between specific services and activities conducted on the premises and adjacent residential properties. All trash storage and pickup, deliveries, loading docks, service entrances, utility lines, cables, transformers or equipment lockers should be totally screened by the building(s) from adjacent residential development and the public right of way.

B. Development Staging Plan

This plan recognizes that the orderly sequencing and timing of development is directly related to the provision and adequacy of public facilities. This plan proposes the introduction of a development staging element tied to the planned construction of public facilities.

As discussed previously, the development of this planning area is intimately tied to the timely construction of Ritchie Parkway. In recognition that highway (or more particularly intersection) capacities are the critical element in the achievement of planned development densities; we have established discrete development stages to govern the orderly build-out of this planning area. Table 15 describes the development stages and the implementing (triggering) mechanisms in more detail. Traffic access to the planning area is a primary factor influencing development in this quadrant of the City.

A mandatory development staging program tied to the zoning process is recommended. Within the range of error of estimate and assuming implementation of all stages, a development density of approximately 2.2 million square feet of research, office and corporate development can take place without creating unacceptable traffic capacity problems (see Section V).

The current staging of this development over the next 10 years will assure the continued economic growth of this industry in Rockville without overloading the highway network. Table 15 summarizes the staging recommendation.

Access to this planning area is predominantly from I-270 via the Montrose Road and Falls Road interchanges. Seven Locks Road and Ritchie Parkway will be the main avenues to the planning area. No connection is anticipated or recommended between the residential neighborhoods of Markwood, New Mark Commons, or Hungerford/Stoneridge except that the residential development within the office park area shall be accessed exclusively through those developments.

Proper plan implementation recognizes the need to exercise the power of eminent domain to achieve the Master Plan streets and highway network.

TABLE 15

Development Staging
Assumptions and Triggering Mechanisms

Basic Assumptions

Plan Adoption
Ritchie Parkway Authorization

<u>Stage</u>	<u>Assumption</u>	<u>Trigger</u>
I	This stage would permit between 400,000 and 800,000 gsf of floor area subject to the following event(s):	
Up to 400,000 S.F.*	<ol style="list-style-type: none"> 1. Widening of Montrose Road between Old Bridge Road and the Montrose/I-270 Bridge (item 5, Table 13). 2. Extension of Monroe Street into the planning area. 3. Construction of the road improvements noted "A" map 11 (Amended). 	<p>Construction of building may commence with the letting of contracts for the work in Assumptions 1, 2 & 3.</p> <p>Occupancy permits shall not be issued until the improvements in Assumptions 1, 2 & 3 are substantially completed.</p>
Up to 800,000 S.F.*	<ol style="list-style-type: none"> 4. Extension of Ritchie Parkway from Seven Locks Road to the planning area. 5. If a connection is made from Ritchie Parkway to Montrose Road via Monroe Street, then all of the improvements in Paragraphs 1, 2 and 3 above become a part of this assumption. <p>*NOTE: Access for construction of buildings shall not be via the existing intersections of Montrose Road with Monroe Street and with Farm Haven Drive.</p>	<p>Construction of building may commence with let of contracts for the work in Assumption 4.</p> <p>Occupancy permits shall not be issued until the improvements in Assumption 4 are substantially completed.</p>
II	<ol style="list-style-type: none"> 1. Completion of Ritchie Parkway from the planning area to Route 355. 	Completion of applicable requirements from prior stages. Contracts awarded for work in Assumptions 1 & 2.
Up to 1.2 million S.F.	<ol style="list-style-type: none"> 2. Unprogrammed improvement 3a.*** 	

TABLE 15 (cont.)

III	1. Falls Road Interchange	Completion of applicable requirements from prior stages. Construction of buildings may commence when 50% of the amount of the construction contract for work in Assumption 1 has been disbursed. Contract award for work in Assumption 2.
Up to 1.6 million S.F.	2. Unprogrammed improvements 1, 2, 3b**, 3c, 4.	
IV	1. Direct access ramp Montrose/I-270 interchange (item 7, Table 13). (The final configuration of the Montrose Interchange and direct access ramp will determine the extent of additional development beyond 1.6 million S.F.) This determination will be made at the time that design of the direct access ramp is approved.	Completion of applicable requirements from prior stages. Improvements substantially completed.
Up to 2.1 million S.F.****	2. The developer shall provide to the City a traffic analysis of the project and the roadnet serving the project, using methods approved by the City. The analysis shall determine the relationship between projected and actual traffic conditions, and the effect of that traffic on the capacity of in-place and planned road improvements, and identify actions which the City can take to alleviate any problems which may exist without altering the development density approved in the plan or denying use permits therefore. Provided further, however, that at the time use permits are granted for any square footage exceeding 1.9 million square feet, the City may require dedication of onsite rights of way or reasonable contributions for traffic engineering improvements on or immediately adjacent to the site under two conditions: 1) that traffic problems have arisen; and 2) traffic generation trips) from the planning area exceed those anticipated under the Plan.	

** Item 3B may be deleted if Item 7 is built.

*** Refer to Table 13, page V-20 for more detail.

**** Within the range of error of estimate (6%) up to 2.2. million square feet could be accommodated. This will be subject to Assumption 2 of Stage IV.

NOTE: If the Falls Road Interchange is not begun by stage III, but Monroe Street is relocated to connect directly to a modified Montrose Road/I-270 Interchange, then between 1.2 and 1.7 million square feet may be authorized by the Planning Commission as it may reasonably determine. As an incentive to the Owner, in the event a modified Monroe Street and Montrose/I-270 interchange can be implemented during stages I, II or III, then the Planning Commission may reevaluate the amount of square footage in stages I,II,III, & IV.

TABLE 16

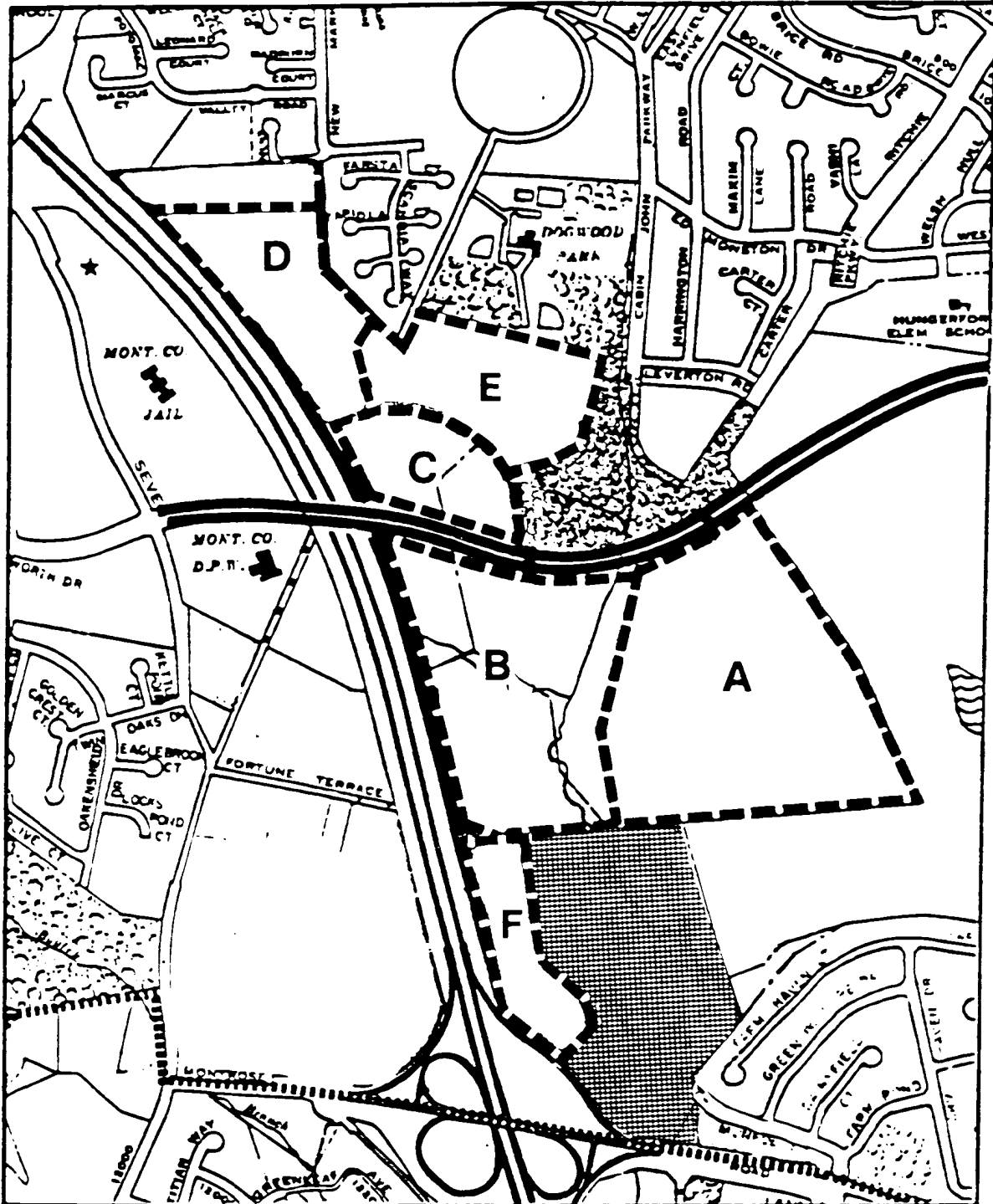
WESTMONT AMENITIES SUMMARY

Project (Approval Jurisdiction Responsible)	Description	Approx. Cost/ Program Status	R/W Dedication/ Construction Responsibility
I. On-Site Projects			
Ritchie Parkway (through site only) (City)	4-lane divided arterial	\$2,000,000 (P)	Developer/City
Monroe "Boulevard" (City)	4-lane divided arterial	\$1,600,000 (U)	Developer/Dev.
Westmont local Roads (City)	Approx. 1.2 miles of primary (48') and second- ary (40') industrial roads	\$2,100,000 (U)	Developer/Dev.
Public Park Land (5 acres) (City)	Five acre park tied to and serving the lake	\$ 600,000 (P)	Developer/City
Storm Water Management Lake (City)	43 ¹ acre storm water management facility with a 13 acre pool area	\$1,900,000 (P)	Developer/City
II. Off-Site Projects			
Montrose-Westmont Access	<ul style="list-style-type: none"> - 52 divided access "ramp" to/from Monroe Boulevard - relocated Monroe Street - relocated North Farm Access - widening of Montrose Road - double left turn from FB Montrose Rd. to Monroe St. 	\$2,100,000 (U) (SIA Option 1)	Developer/Dev.

(P) = Programmed
(U) = Unprogrammed

Project (Approval Jurisdiction Responsible)	Description	Approx. Cost/ Program Status	R/W Dedication/ Construction Responsibility
II. Off-Site Projects (Continued)			
Montrose Interchange Reconstruction (SIA)	Reconstruct interchange as part of I-270 upgrade	\$4,300,000 (P)	SIA
Ritchie Parkway (remainder Route 355 to Seven Locks Road) (City)	4-lane divided arterial	\$9,100,000 (P)	City
Roadway Improvements Package (Table 13 - Nos. 1-4) (City, SIA)	Four projects	\$1,100,000 (U)	--
Montrose Road Extension and Widening (County)	West of I-270	\$3,100,000 (P)	County
All other Programmed Roadway Projects (City, County, and SIA)	---	(P)	City/County/SIA

{P} = Programmed
{U} = Unprogrammed



RECOMMENDED DISTRIBUTION OF FLOOR SPACE

PLANNING AREA 12

MAP 17

<u>Cluster</u>	<u>Approximate Site Size</u>	<u>Gross Floor Area</u>
A	60 ac.	1,000,000 S.F.
B	50 a.c.	750,000 S.F.
C	5 a.c.	250,000 S.F.
D	30 a.c.	100,000 S.F.
E	19 a.c.	Residential up to 275 units
F	8 a.c.	75,000 - 150,000 S.F.

An extensive buffer system of existing and new trees are proposed to screen the rear yards of the residential subdivisions from the proposed research and office development (see page VI-4).

The extension of Monroe Street from the south into the project area under Stage I will be modified in Stage IV with a modified interchange access point. This will further isolate and protect the North Farm neighborhood from adverse impacts.

It is proposed that upwards to 2.2 million square feet of additional office park development be encouraged for this area subject to the staging proposals contained herein. Office development sites are clustered and arranged to permit the retention of large stands of trees, both for aesthetic enhancement of the office park environment, and to provide visual buffers for nearby residential areas. An office park amenity, which could include recreation facilities, restaurants and daycare, may be approved at the concept stage so long as total rush hour trips will not exceed the trips anticipated by the approximate 2.2 million square feet in this plan.

The approximate distribution of floor space within the five office clusters is shown on map 17.

The lowest density of office use is proposed for development clusters nearest existing residential areas (Cluster D). The residential component is proposed adjacent to Dogwood Park to develop at a permitted density of 7.0 to 14.5 units per acre (Cluster E).

Cluster B, situated adjacent to I-270 south of proposed Ritchie Parkway, is proposed to contain approximately 750,000 square feet of floor space on approximately 50 acres for a FAR of 0.27. Approximately 20 acres in Cluster B adjoining Cabin John stream valley will be preserved in green space with public use easements created for the lake and access to the lake.

C. Public Parkland and Open Space Use

Publicly accessible open space will be provided in two ways. An area of approximately 5 acres is recommended for dedication to the City as public parkland. This area is situated in and adjacent to the Cabin John stream valley north of Ritchie Parkway and abutting Dogwood Park. This will enable the development of public park facilities related to, and in conjunction with, the proposed lake. A jogging path can be extended through this site from Dogwood Park, under the Ritchie Parkway bridge, and along the lake to the south. The final location of the park facility will be determined at the concept plan stage. Its purpose is to provide for water-oriented public facilities directly accessible to the lake.

Public use of green space around the lake will be achieved by means of public use and access easements from the north and south. Additionally, the area required for the proposed lake itself will be provided by means of an open space easement.

D. Visibility of Proposed Development

Through careful siting of proposed buildings in the Planning Area, taking into account existing residential areas, the location and height of tree growth and site topography, the visual impact of the proposed development on nearby residential areas will be minimized. Buffer areas will be retained adjacent to residential areas. Existing tree growth will be supplemented with landscaping, as necessary, to further enhance visual privacy. Low level buildings will be established in the areas most proximate to residential neighborhoods with taller buildings restricted to areas of the site most distant from residences, and where topographic conditions and retained tree growth will shield the view of the buildings.

E. Market Demand

As discussed previously, available land to accommodate new research and office development activity has dwindled to approximately 58 acres citywide. This represents a 2 year supply in scattered locations along Piccard Drive, Research Boulevard, and Monroe Street (south) in Planning Area 12.

This type of commercial activity requires an adequate reserve of appropriately zoned land to meet industry growth expectations in five year increments. Limited growth opportunity can affect the vitality of the entire industry in Rockville.

F. Area Character

Planning Area 12 is well suited for research and office development. Its location in the I-270 corridor and high degree of visibility make this a prime candidate location for prestigious high-tech research, office, and corporate development.

G. Environmental Issues

The effect of noise, air, and visual pollution from I-270 on a residential living environment within 600 feet of Interstate I-270 is the primary environmental concern raised by the planning area. The natural features of the site, including extensive tree cover along parts of I-270 and noise pockets created by the topography, can provide some protection from highway noise and visual impacts provided housing is set back a minimum distance of 600 feet from the state's right of way. In addition, because the site is undeveloped, acoustical site planning techniques can be employed in an attempt to further mitigate the noise from the highway. Examples of these techniques include:

- (1) Creating protected sites through a combination of excavation and berms.^{13/}
- (2) Placing as much distance as possible between the noise source and the noise sensitive activity.^{14/}

(3) Placing noise compatible activities such as parking structures between the noise source and sensitive activities.

(4) Using buildings as barriers.^{15/}

This land use plan recommends a mandatory minimum 600 foot setback distance and intervening buffer strip along I-270 where it abuts further residential development to insure a minimum effective distance between the highway and the residences. Clustering housing units, which is permitted under the planned residential unit special development procedures, may also reduce noise impacts. Clustering as a special development technique is a voluntary development procedure. A new planned unit development zone or another mandatory procedure should be adopted to insure that this site or any similar is developed as a unit. If this residential alternate is selected, the city should require as a part of site plan approval that the developer provide an acoustical consultant to:

- i) Determine acceptable performance standard(s) to protect new development;
- ii) Identify noise impacted zones where special measures will be required; and,
- iii) Recommend site specific planning, design, building placement and construction techniques to achieve these standards.

H. School Impact

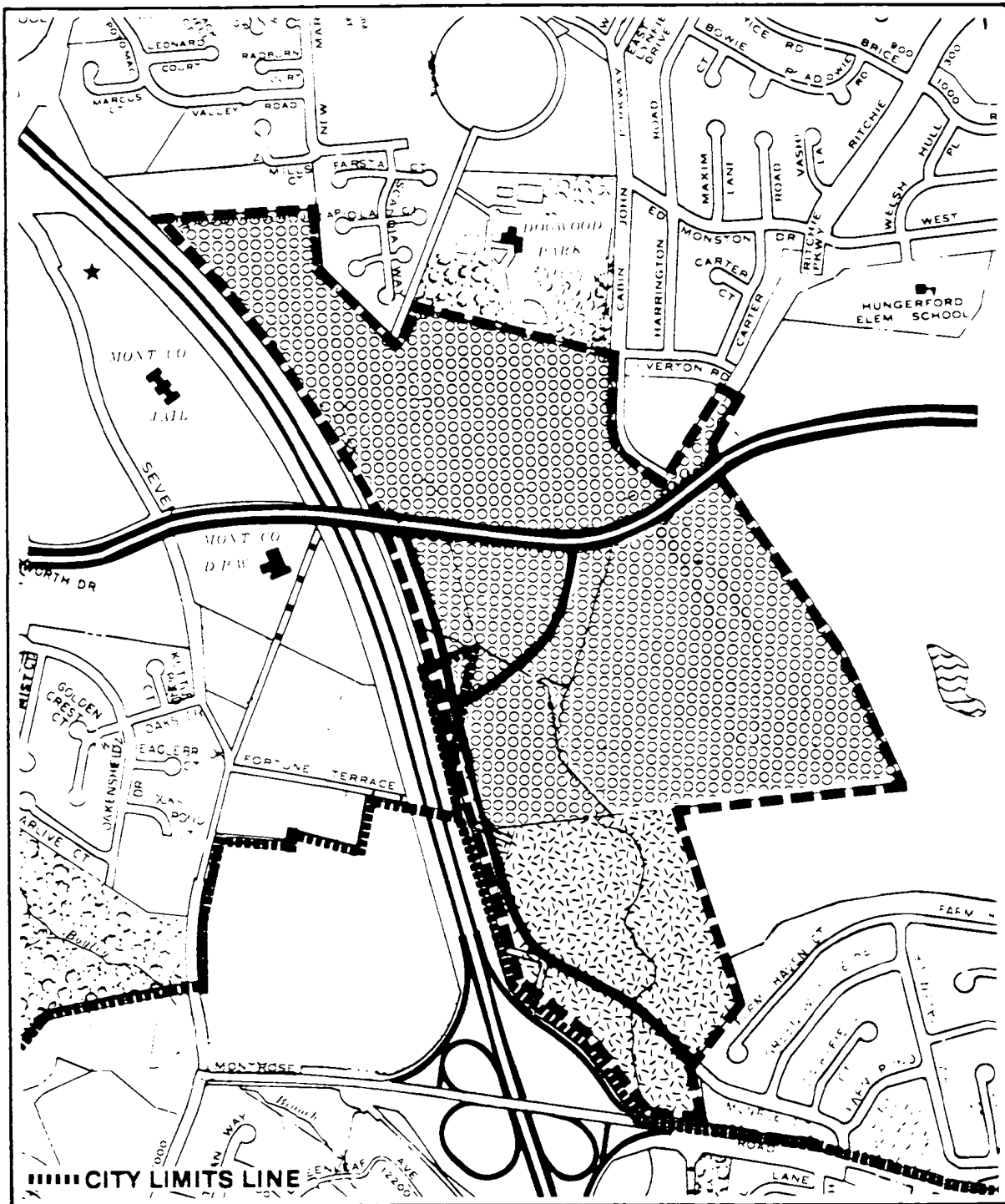
This plan recommends a range of residential from units 114 to 275 dwelling units with an assumed mix of single, townhouse, multifamily homes. Based on school children generation rates provided by the Montgomery County Public Schools, this plan would increase the public school population as follows:

	<u>S.F.D</u>	<u>S.F.A.</u>
Beall Elementary	49	38
Julius West Middle	31	11
Richard Montgomery High	31	12
	<hr/>	<hr/>
Total	111	61

^{13/}A berm can provide noise attenuation of up to 15 dBA if it is several feet higher than the "line of site" between the noise source and the receiver. USDOT FHWA. Highway Noise: A reprint of the Audible Landscape prepared by Urban Systems Research and Engineering, Inc., of Cambridge, MA for FHWA, 1976.

^{14/}A reduction of 3 - 5 dBA per 100 feet can be expected. Ibid, p. 54.

^{15/}One study shows that a two story building can reduce noise levels by 13 dBA. Ibid, p. 38.



PLANNING AREA 12

SCALE 1" : 1000'

NORTH ▲
MAP 18

ZONING MAP



I-3 INDUSTRIAL PARK



**O-3 RESTRICTED OFFICE
(NEW PROPOSAL)**

I. Land Use

The City's amended Master Plan when incorporating this neighborhood plan suggests a balance of land uses reflecting the general citywide land use policy. Quality development and economic growth represented by research and office development is a major element of this alternative plan. Housing, parks, and conservation uses are included with equal importance to maintain the "balanced community" policy of Rockville.

J. Zoning

To accomplish the land use objectives of this option, a new multiple use zoning classification is recommended to encourage a comprehensive planned and staged approach to the development of large acreages (100) of land.

Residential activity would be mandated as a means of stimulating interest in mixed use, comprehensive development.

The new zone could encourage the creation of corporate villages as part of a comprehensive development plan. Research, office and corporate headquarters could provide a residential component that could achieve a closer space/time linkage between home and work.

K. Master Plan

This land use plan will amend the 1970 Master Plan land use map.

This plan does not recommend, however, a basic change in adopted public policy. Instead, it maintains that the 1970 Master Plan, which is 14 years old, should be updated to reflect changing market forces and economic development needs of the city.

L. Employment

Based on 2.1 million square feet of office park development, this plan envisions approximately 5,600 new employees by 1995. The proposed 1995 employment for the planning area is considered an acceptable objective for the period, and is within the capacity constraints of the highway system, provided the staging or sequencing of development is consistent with the events outlined in the staging program.

M. Adequate Public Facilities and Development Staging

1. Transportation

With improvements shown in development staging (Table 15), the transportation network is judged to be adequate to serve the anticipated development of 2.2 million square feet.

2. Sanitary Sewer

Sanitary sewer systems are judged to be adequate to serve the development levels anticipated.

3. Stormwater Management

The explicit assumption is that regardless of the ultimate land use, the runoff coefficient will be the same. The proposed lake in the center of the planning area will be more than adequate to meet stormwater and water pollution control requirements. The lake should be developed in conjunction with any recreational development planned in the area. The passive recreational and aesthetic benefits offered by a lake in this environment can only enhance the attractiveness of this area for quality development.

N. Environmental Considerations

1. Immediate Area

Previous discussions have carefully considered the environmental ramifications of the development occurring in the planning area. No significant environmental consequences have been identified, provided good land development practices are followed.

2. Surrounding Area

In terms of the surrounding residential development, this plan recommends land use building design standards, staging, screening and environmental controls that will protect adjacent neighborhoods from unwarranted intrusion and will protect and promote the preservation of surrounding residential neighborhoods.

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